

THE ARCHITECT & BUILDING NEWS

3 JUNE 1954

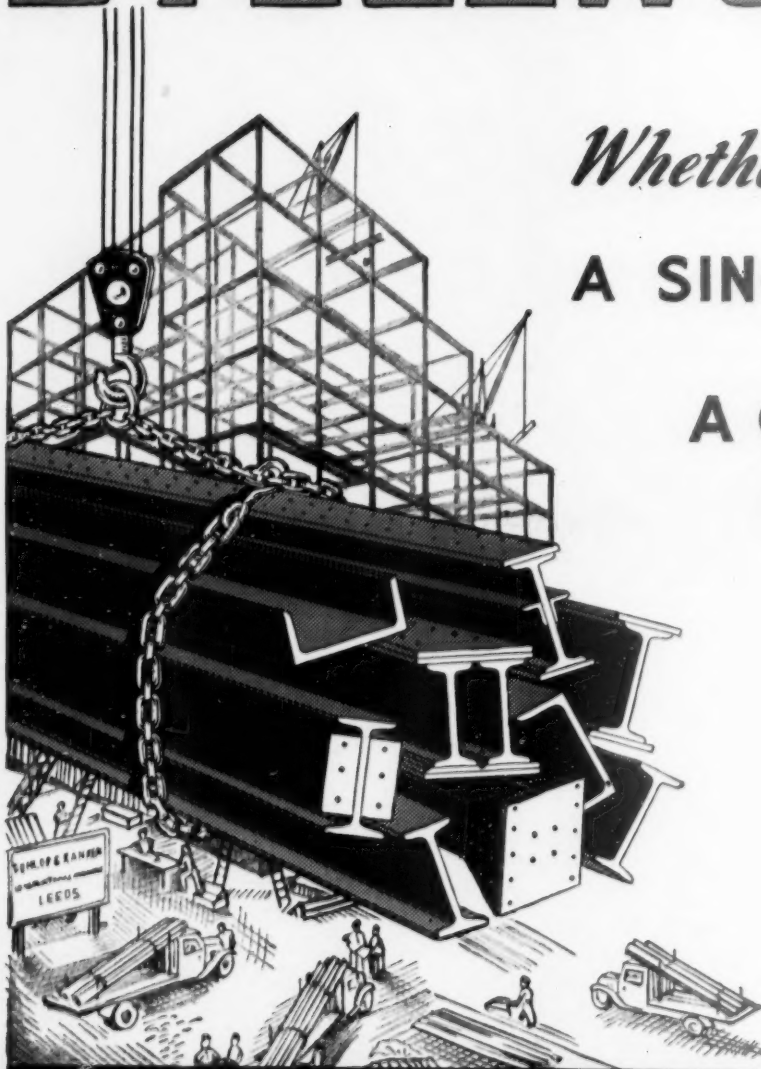
VOL. 205

NO. 22

ONE SHILLING WEEKLY

- PITHEAD BATHS, NUNEATON
- LYNDON GREEN PRIMARY SCHOOL, BIRMINGHAM
- HOUSING FOR FRIERN BARNET U.D.C.

STEELWORK



Whether you want

**A SINGLE JOIST
OR
A COMPLETE
BUILDING**

Try

D & R

**STEELWORK
SERVICE**

DUNLOP & RANKEN

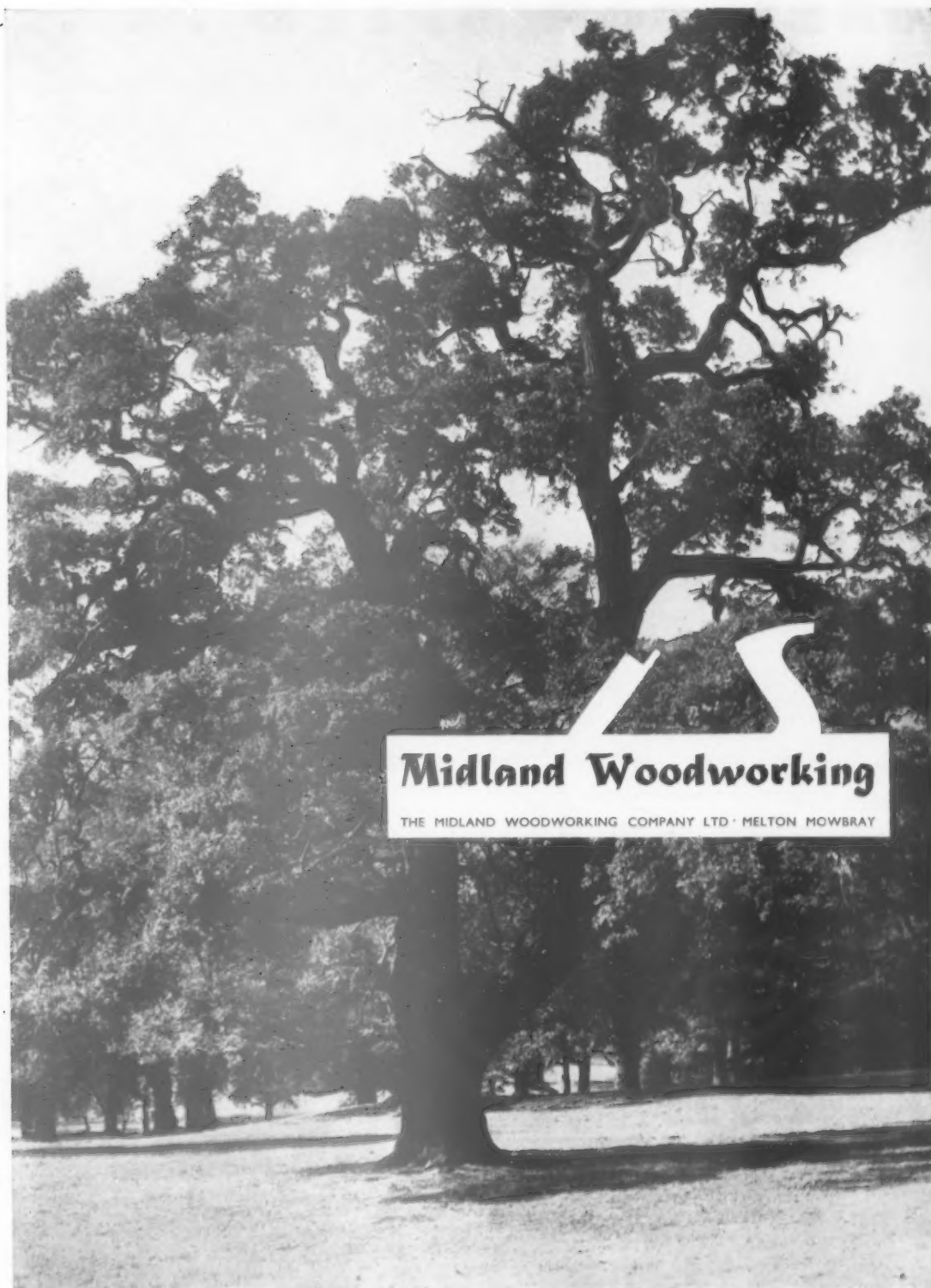
**CONSTRUCTIONAL ENGINEERS
IRON & STEEL STOCKHOLDERS**

LTD

TELEPHONE
27301 (20 LINES)

LEEDS

TELEGRAMS
"SECTIONS LEEDS"



Specialists in high-class joinery for the Building Trade

CONEX FOR SPEED



Cut-away view of
"THE PERFECT
JOINT AT
EVERY POINT."

CONEX COMPRESSION JOINTS are made in the most modern factory of its type—and approved by the leading Architects, Surveyors, Contractors, Government Departments, Municipal Authorities, and Water Works throughout the World.

171X Conex to Conex

1071X Conex to F.I. Elbow
(or 871X Conex to M.I.)

Conex Fittings are also specifically made for use with Plastic (or Polythene) tubing.

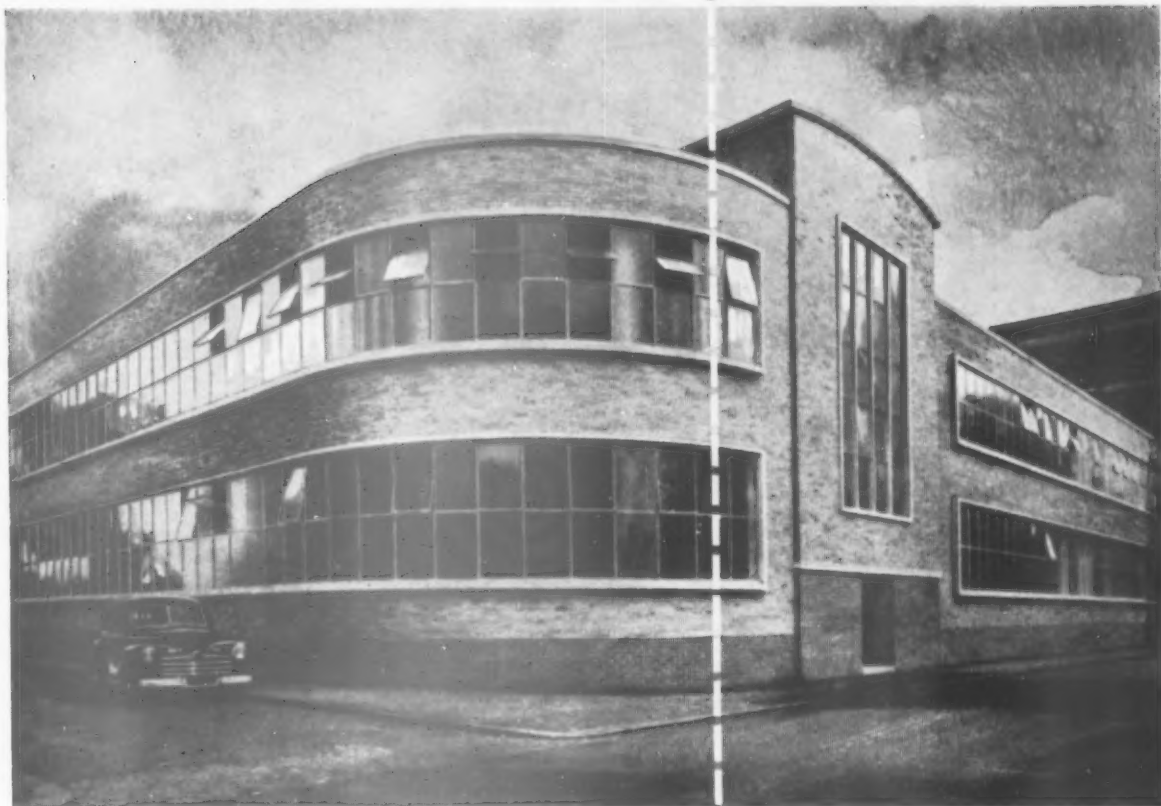
CONEX LEAVES THE REST OF THE FIELD STANDING when it comes to joining Copper Tube. The joint, which is of almost welded strength, can be "made" in 10 seconds with a spanner—and, if necessary, broken and remade without impairing its efficiency. Speed is essential in most contracts, and so more and more contractors are standardising on CONEX Compression Joints in all cases where a first-class plumbing job is required fast.

CONEX Combined Fittings (as shown in small illustrations) are proving increasingly popular. In addition to being more economical than using an Elbow and separate Draw-off Cock, they considerably reduce installation time.

Write NOW for fully illustrated literature.

COMPRESSION
CONEX
JOINTS

CONEX-TERNA LTD., WHITEHALL ROAD, GREAT BRIDGE, STAFFS. 'Phone: Tipton 1162-3, 'Grams: Conex-Terna, Tipton.



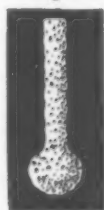
THE NORWICH FACTORY
of John Mackintosh & Sons Ltd.

A. J. Caley Ltd., Chapel Field Works.

Consulting Engineers: *Messrs. Frederick S.
Snow and Partners.*

FRANKIPILES

THE FRANKI COMPRESSED PILE COMPANY LIMITED
39 VICTORIA STREET LONDON S.W.1
Telephone : Abbey 6006-9 • Telegrams : Frankipile, Sowest London
And in AUSTRALASIA • B. W. INDIES • RHODESIA • S. AFRICA



FRANKI (Driven) Piles
FORUM (Bored) Piles
MIGA (Jacked) Piles
R. C. Foundations

AND WE HOLD THE JOB UP



MURITE ADVANTAGES

FIRE RESISTANCE "Murite" Plasters when set revert to Gypsum. This mineral contains 20% of Chemically combined water which must be driven off before dangerous temperatures can be reached. This water barrier is one of the reasons why "Murite" Gypsum Plasters have such excellent fire-resisting properties.

WORKABILITY "Murite" Plasters are simple to use. Scientific factory processing and a controlled set give superb working properties and allow ample time for first class results to be obtained.

ECONOMY "Murite" Plasters have a greater covering capacity than other similar plasters. The undercoat grades also require less sand therefore they effect a considerable saving in use.

SPEED "Murite" Plasters set completely within a few hours. If required, two coat work can be completed the same day and certain types of decoration can be started almost immediately without fear of failure.

MURITE GRADES

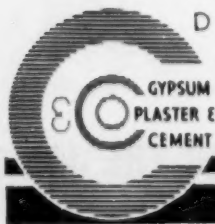
1
FIBRED PLASTER
FOR SANDED
UNDERCOATS
ON WALL AND
CEILING BOARDS,
WOOD LATH, ETC

1A
SPECIAL FIBRED
PLASTER FOR
SANDED UNDER-
COATS ON METAL
LATHING AND
CONCRETE

2
BROWNING
PLASTER FOR
SANDED UNDER-
COATS ON WALLS

3
WALL FINISH FOR
FINISHING ALL
CLASSES OF
SANDED
UNDERCOATS

BOARD FINISH
FOR SINGLE COAT
WORK ON ALL
TYPES OF WALL
AND CEILING
BOARDS, CEMENT
RENDERINGS, ETC.



DESCRIPTIVE FOLDER AVAILABLE UPON REQUEST

CAFFERATA & CO. LTD.
NEWARK • NOTTS. TELE : NEWARK • 2060



Cumbrae*

BOOKCASES

*CUMBRAE is a registered trad. mark.

Made only by Morris of Glasgow



VERTICAL BOOKCASE
with glass sliding doors
4' 8½" x 2' 3½"
£15 10 0



HORIZONTAL BOOKCASE
with glass sliding doors
4' 5½" x 2' 6½"
£15 10 0



HORIZONTAL BOOKCASE
with 2 wooden doors
4' 5½" x 2' 6½"
£17 10 0



VERTICAL BOOKCASE
with 2 wooden doors
4' 8½" x 2' 3½"
£17 10 0



HORIZONTAL BOOKCASE
with 4 wooden doors
4' 5½" x 2' 6½"
£19 17 6



JUNIOR BOOKCASE
2' 6½" x 2' 3½"
£11 11 0
with wooden doors
£13 10 0

AVAILABLE in seven different styles and five different finishes, Cumbrae Bookcases provide an ample ten and a half feet of stacking space (apart from the Junior Bookcase), add distinction to the home or office. Finely finished with a smooth wax polish, the shelves are adjustable and easily removed for cleaning. Add to your collection as circumstances demand, stack them to divide up a room, use them as display cabinets . . . there's no end to their adaptability.

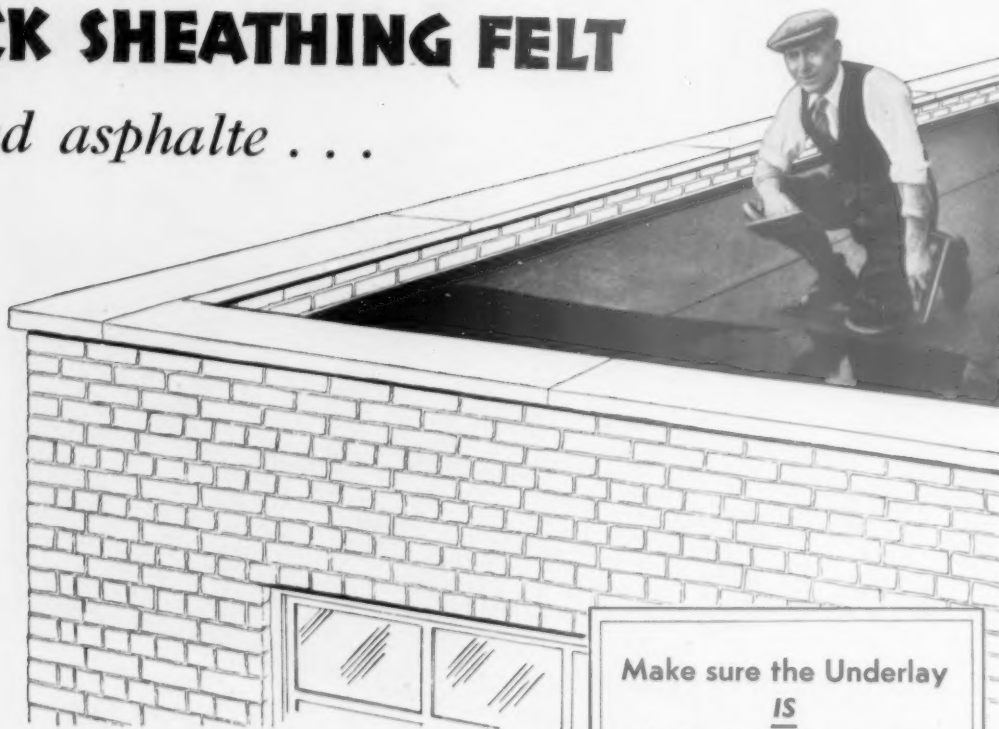
Finished in Walnut (Natural), Oak (Natural and Medium), Mahogany (Natural and Medium).

Can be supplied without bases for fixing direct to walls.

Further information from

H. Morris & Co. Ltd., Milton Street, Glasgow, C.4
and at Deansgate Arcade, Deansgate, Manchester.

There's 'a perfect marriage' between
BLACK SHEATHING FELT
and asphalte . . .



BLACK Sheathing Felt is the traditional and TESTED Underlay for mastic asphalte roofs and floors. Its tough fibres of flax and jute "marry" perfectly with hot asphalte. One thickness gives complete isolation from the screed. One thickness provides perfect insulation, giving maximum time for the asphalte to be worked easily and thoroughly.



- PLEASANT TO HANDLE
- DOES NOT FRACTURE
- DOES NOT ABSORB MOISTURE
- DOES NOT SHRINK

Make sure the Underlay
IS
BLACK SHEATHING FELT

UNDER THE ASPHALTE



All rolls bear this sign. It is the architects' and asphalters' assurance of top quality underfelt. Accept no substitute for Black Sheathing Felt.

Specify, use

BLACK SHEATHING FELT
AS THE UNDERLAY TO MASTIC ASPHALTE ROOFS & FLOORS

Robt. McCalmont & Sons Ltd., Belfast
 D. Anderson & Son Ltd. Manchester

Manufactured by

F. McNeill & Co. Ltd., London
 Engert & Rolfe Ltd., London

Permanite Ltd., London
 John Rogers, Ltd., Belfast
 John Erskine Ltd., Belfast

*Always
specify*



*Spring
Seating
Units*

**BEST FOR REST
BEST BY TEST**

TINSLEY WIRE INDUSTRIES LTD.
SHOWELL ROAD • BUSHBURY • WOLVERHAMPTON
Telephone: FALLINGS PARK 31208/9 Telegrams: TWIL, WOLVERHAMPTON

SIEGWART

PRECAST FLOORS & ROOFS



SIEGWART FLOOR COMPANY LIMITED

GABLE HOUSE, 40 HIGH STREET, RICKMANSWORTH, HERTS.

RICKMANSWORTH 2268

BERKELEY HOUSE, BIRMINGHAM 16

324 DEANS_GATE, MANCHESTER 3

ENDERBY, NEAR LEICESTER

CARLTON HOUSE

26 BLYTHSWOOD SQUARE

GLASGOW, C.2



PIPED ABOARD

Whether you are responsible for building or buildings, it is important that you should have a true picture of fuel costs. Gas gives you that. There are no other factors to reckon with—no additional problem in the way of specialised handling and storage equipment or men to look after it. Gas is stored for the user. It comes, piped all the way, from the holder to the point where it is required. Thus the gas bill represents the *true* cost of fuel. There are no extras. This is well worth pondering when you consider other advantages of gas—its cleanliness and flexibility, for example, its constant calorific value, the ease with which it is controlled, how quickly it reaches full heat. There are good, economical reasons for the popularity of gas.

Gas Counsel

YOUR best advocates for gas are the specialists at your Area Gas Board. You can call on them for free advice and their services are backed by the accumulated experience of the whole Gas Industry. If you would like the latest information about gas, get your secretary to fill in these details (or pin this advertisement to your letter heading) and send to your Area Gas Board or to the Gas Council, 1 Grosvenor Place, London, S.W.1.

NAME

ADDRESS

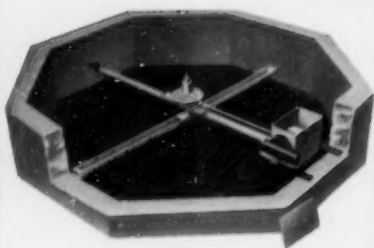
WE NEED HEAT FOR

47

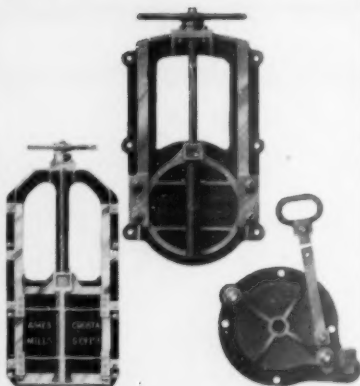
The Gas Industry makes the fullest use of the nation's coal.

GCG6B

B

SEWAGE PURIFICATION PLANTS

The Simplette Revolving Sprinkler is designed specifically for treating sewage from small communities. It is self-operated from a small water wheel, which rotates an open trough. The smallest flow will operate it and attention required is negligible.

PENSTOCKS, VALVES AND FITTINGS

A varied range of Penstocks, Sluices, Floating Arms, Sludge Valves and other General Fittings is manufactured for sewage purification works. A booklet illustrating the complete range available will be sent on request. Quick delivery can be offered.

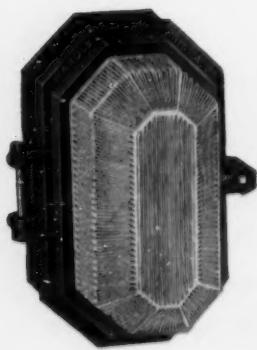
EJECTORS FOR LIFTING CRUDE SEWAGE

The Simplex Sewage Ejector is a self-contained unit for lifting up to 60 gallons per minute of unscreened sewage. Suitable for individual buildings, works and rural communities, the complete equipment can be housed economically in a single small chamber.



AMES CROSTA MILLS & CO. LTD.
HEYWOOD LANCASHIRE

For Every Situation...



PRIMALUX

Directional Lighting Units

Enamelled or galvanised finishes. Choice of seven inlet points. Obtainable from all leading stockists or direct from the works where "Maxheat" oval tubular electric heaters, "Workslite" reflectors and Wardle floodlights are made.

★ **PRIMALUX COMMANDS THE WORLD'S LARGEST SALE**

The

Wardle

Please send for details to

Engineering Co. Ltd., Old Trafford, Manchester, 16.



Fitted for outdoor use and suitable for all areas



GUARDED For protection, resistance, protection, durability



ACCURATE For accurate lighting of all areas



DETACHABLE UNIT For removal of light when not in use



That arresting Whiteness

The impelling effect of white against a darker background is a powerful instrument in the hands of the architect. By using Snowcrete, he can highlight a particular feature, or give dramatic prominence to an entire building. Snowcrete is also used for producing renderings, facings, terrazzo and cast stone of great durability.

SNOWCRETE

WHITE PORTLAND CEMENT

Full particulars from

THE CEMENT MARKETING COMPANY LTD

PORTLAND HOUSE, TOTHILL STREET, LONDON, SW1

G. & T. EARLE LIMITED, WILMINGTON, HULL

THE SOUTH WALES PORTLAND CEMENT & LIME COMPANY LTD., PENARTH, GLAM.



S.11

BRITISH CEMENT IS THE CHEAPEST IN THE WORLD



Above Ground with B.S.S. 659/1944
AND Copper Tube
Below Ground with B.S.S. 1386/1947
Copper Tube

Because :—

★ This is THE MOST EFFICIENT metal to metal joint with no loose rings, cones or ferrules, self-seating by means of swage or circular ridge. Made in less than half a minute as illustrated.
DOUBLE GRIP CANNOT SLIP.

★ Smaller, neater, and far less expensive than alternate methods of jointing.



★ Reduces maintenance trouble to a minimum as it cannot pull off in heat or frost. Will undo and re-make.

★ Prompt delivery.

Universally approved by Government Departments, Water Works, and Local Authorities, etc.

For full particulars and illustrated Catalogue write to:—

KINGS LANGLEY ENGINEERING CO. LTD.

KINGS LANGLEY · HERTS

TELEPHONE : KINGS LANGLEY 2215-6

TELEGRAMS : CHAMPION · KINGS LANGLEY

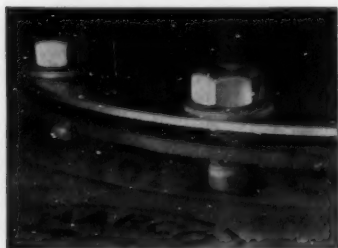
An Important Improvement

in

HOT WATER TANKS

IN keeping with their progressive policy, and to meet the requirements of the Building Industry, Harveys have designed a new type of Manhole and Cover for "HARCO" HOT-WATER TANKS.

The main advantage of this development is that of preventing the thread of the bolts from coming into contact with water, thereby avoiding corrosion—and the consequent risk of shearing the bolt heads—and greatly facilitating removal of the cover for servicing.



This is achieved by securing the heads of the bolts inside the tank, so that the screwed portion projects outside.

No hemp, red lead or other jointing material is required when fixing the cover, other than the India Rubber Ring which is supplied with the tank.



This ring, together with the grummetts fitted under the bolt heads inside the tank, enables a perfect seal to be made in much less time.

The cover itself is slightly convex to give additional strength, and the turned-over edge of the manhole presents a smooth rounded surface which cannot injure the hands or arms when installing the tank.

Ask for List No. A 873.

'Harco' Patent Manhole & Cover

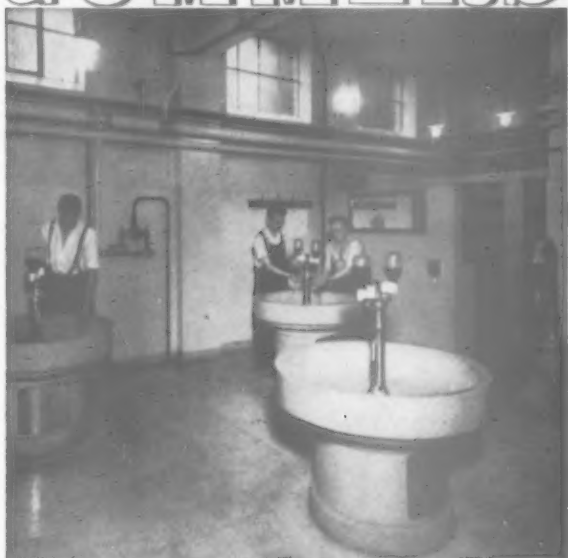
Please obtain your supplies through your usual Builders' Merchant or Ironmonger.

Harvey

Patent No. 664463

G. A. HARVEY & CO. (LONDON) LTD., Woolwich Road, London, S.E.7. (GREENWICH 3232, 22 lines)

GUMMERS



Shower Equipment

Type E.2 "Security" Thermostatic
Mixing Valve supplying three wash
fountains in the amenities centre at
the works of Park Gate Iron and
Steel Company, Limited.

GUMMERS LIMITED
ROTHERHAM

TELEPHONES :- ROTHERHAM 4865-6-7
TELEGRAMS :- "GUMMER" ROTHERHAM

A PAINT WHICH GIVES PERMANENT PROTECTION

FROM BACTERIA & MOULD

Denton's Dentolite is a non-poisonous fungicidal and bactericidal Emulsion Paint. Its unique properties remain constant throughout its life, PREVENTING THE GROWTH OF MOULD AND BACTERIA.

The only paint of its kind in the world

There is no other paint which has these advantages. The subject is dealt with in our various publications available on request.

THE FINEST EMULSION PAINT

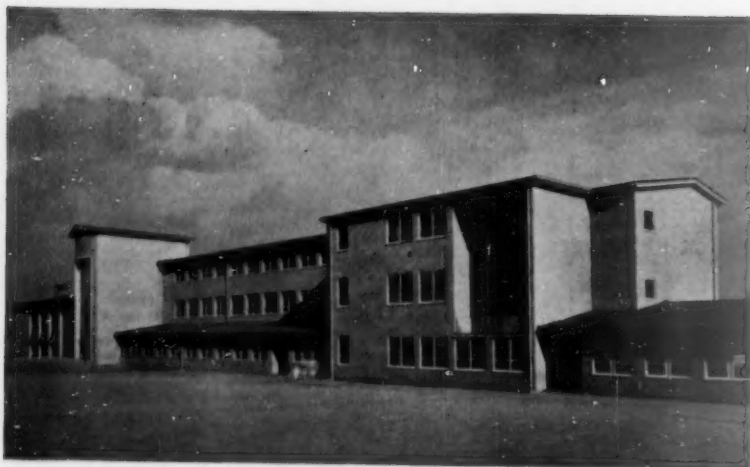
We claim that Dentolite is the finest Emulsion on the market—it's special sterilising action in no way affects its durability or fine appearance. Fine colours, durability, application and finish are all up to the high standard for which we have been famous for over 160 years.

Denton's
DENTOLITE
+ Self-Sterilising +
EMULSION PAINT



DENTON & JUTSUM LTD.

ABBAY ROAD • BARKING • ESSEX



**LYNDON GREEN PRIMARY SCHOOL
BIRMINGHAM**

Chartered Architect :—
S. T. WALKER OF BIRMINGHAM

BUILT BY

**J · R · DEACON LTD.
LICHFIELD & BIRMINGHAM**

**LYNDON GREEN PRIMARY SCHOOL
BIRMINGHAM**

Chartered Architect: S. T. WALKER.

Builders: J. R. DEACON LTD.,
Lichfield.



**RUDDERS & PAYNES
LIMITED**

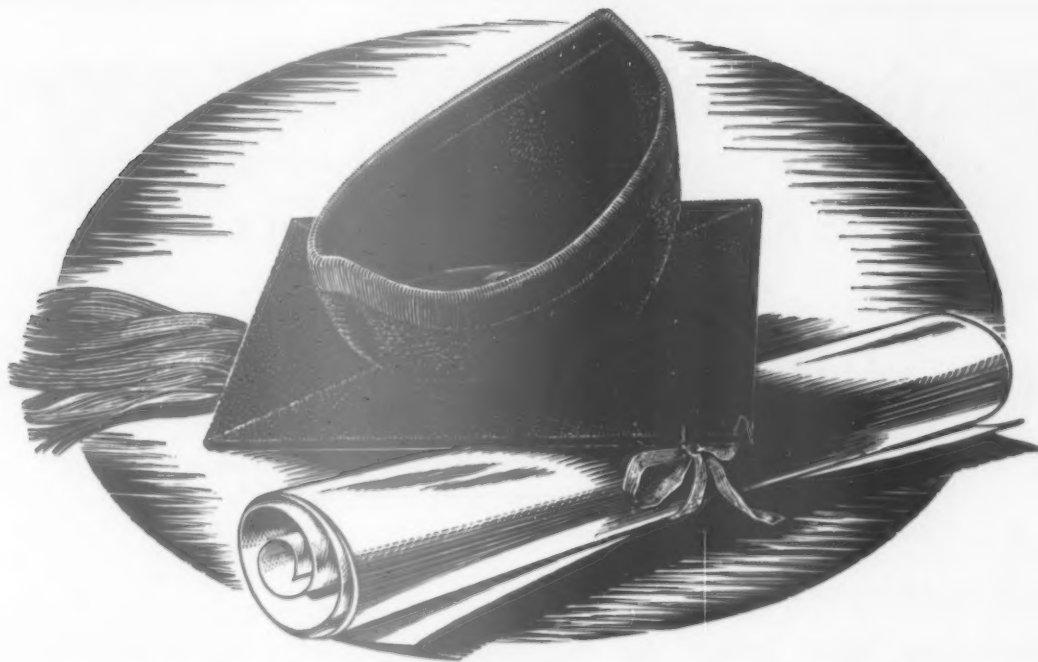
In dealing with specific problems in
STRUCTURAL INSULATIONS,
SUSPENDED CEILINGS, ROOFING,
PARTITIONING and FENCING, our
skilled technical staff is at your service.
The many development plans in which
we have successfully co-operated is evi-
dence of the value of our wide practical
experience to Architects and Builders.

**ASTON
BIRMINGHAM 6**

Telephone : ASTon Cross 3071 (15 lines)
Telegrams : "SAWMILLS, Birmingham"

AND AT : ASHTON VALE · BRISTOL

Telephones : Bristol 64830, Bath 88495.



STEELWORK

for SCIENCE

Technical education is, in this age, of paramount importance, and its fulfilment demands more and better facilities. No more famous centre for such education exists than the Manchester College of Technology, now being greatly extended to meet these needs — with Steelwork by



**CONSTRUCTIONAL
ENGINEERS**

TO THE DESIGN OF BRADSHAW GASS & HOPE, F.F.R.I.B.A.

Registered Office & Works: **MANCHESTER, 17** Telephone: TRAfford Park 2341 (10 lines)
London Office: 68 Victoria St., S.W.1. Tel: Victoria 1331/2. Technical Offices: BIRMINGHAM, LOUGHBOROUGH



Architects: Bradshaw Gass & Hope, F.F.R.I.B.A.

G. E. & W. WINCOTT LTD.

Building Contractors

64, COTON ROAD, NUNEATON.

General Contractors to:—

The National Coal Board

for the

Griff No. 4 Pithead Baths

also contractors to:—

Admiralty, War Office, Air Ministry & Ministry of Works, etc.

Established 1895.



Efficient dust removal at PITHEAD BATHS

B.V.C. have made a close study of the dust problems experienced in the coal industry. Here for example is illustrated a specially designed platform truck and B.V.C. T4 cleaner in use at Pithead baths. A large number of such plants has been supplied including equipment for the new baths at Nuneaton. Other specialised equipment has been designed for pit ponies and other usage.

B.V.C. in their long experience of industrial dust extraction problems have produced equipment and tools which provide the answer to almost every need for extracting, salvaging and conveying dust and light particles. Please write for particulars.

B.V.C.
BRITISH VACUUM CLEANER

**INDUSTRIAL VACUUM
CLEANERS**

Dept. 106 BC, THE BRITISH VACUUM CLEANER & ENGINEERING CO. LTD. Head Office: Leatherhead, Surrey. Ashted 886.

Introducing a modern insulation board

The illustration shows the interior of a Clothing Factory at Leeds where "TURNALL" Asbestos Insulation Board has been used as an under-drawing to the roof. This new board is incombustible and can be supplied in standard sizes 8' x 4' and 8' x 2' nominal—thicknesses $\frac{1}{4}$ ", $\frac{3}{8}$ " and $\frac{1}{2}$ ".

Thermal Conductivity .80 B.Th.U./sq. ft./hr./°F./1" thick.

"TURNALL"
REGD TRADE MARK
**ASBESTOS
INSULATION BOARD**



TURNERS ASBESTOS CEMENT CO LTD

A MEMBER OF THE TURNER & NEWALL ORGANISATION

TRAFFORD PARK

MANCHESTER 17



a little assistance . . .

... at the right moment can save a lot of inconvenience!

As the leading manufacturers of Gypsum Plasters and Plaster Boards, the responsibility of The British Plaster Board (Holdings) Limited extends beyond the manufacture of superior materials. Constant research is maintained by our scientific staff, whilst our technicians and practical men are always available to supervise or assist in the application of our methods of internal lining.

These services have helped to establish the brand names of BPB products on all specifications requiring fire-resisting, high quality internal linings and finishes.



'Thistle' Plaster Base Board and Lath, 'Thistle' and 'Pharaoh' Plasters, 'Paramount' Plaster Wallboards, 'Paramount' Constructional Systems, are all made from fire-resisting Gypsum.

THE BRITISH PLASTER BOARD (HOLDINGS) LIMITED

MORRIS HOUSE 1-5 JERMYN STREET LONDON SW1 Telephone Whitehall 9821
and
BIRKENHEAD ROAD WALLASEY CHESHIRE Telephone Birkenhead 4411

CONTROLLED LIGHT for Architectural Schemes

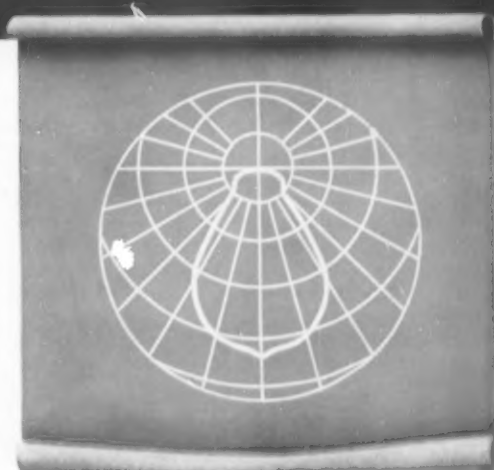
CONCENTRATING · INTENSIVE · EXTENSIVE



HOLOPHANE
IN-BILT CONTROLENS UNITS

The Holophane Controlens system of lighting employs a scientifically designed pattern of prisms to control efficiently and accurately the light distribution and output of the fitting.

This semi-recessed In-Bilt unit is ideal for interior schemes where an inconspicuous source is required for general or localised illumination. By using different lens plates the light can be directed on to any surface. Obtainable in single or grouped units, they are applicable to any architectural plan. Our technical advice service is at your disposal.



HOLOPHANE LIMITED

SCIENTIFIC ILLUMINATING ENGINEERS

ELVERTON STREET, WESTMINSTER, LONDON, S.W.1. Phone: VICTORIA 8062. Grams: Holophane Sowest London



The

Bar of the House

IN THE BRITISH TRADITION

Oak counter front, Macassar inlaid, with massive dividing columns to match. Counter top inlaid in terracotta "Dalex". Centre section has oak leaning rail and bronze footrest; end sections designed for waiter service. All sections have sliding sash enclosures with oak moulded cornices.

Island type backfitting (also serving adjoining smoke room and off-licence), has mirrored back, oak shelves, and cooled lower section.

G. & C. Counters, backfittings and furniture were supplied to other parts of the hotel.



The Lounge Hall at the Lightbowne Hotel, Manchester.

Owners: Chesters Brewery Co. Ltd.

Architect: F. Riley Esq., L.R.I.B.A., F.M.S.A. (Messrs. Brameld & Smith.)



BRITAIN'S BIGGEST BAR FITTERS

Member of the Allied Brewery Traders' Association

- Head Office: Dalex Works, Colleshill Street, Birmingham, 4.
- London Office: 109-115, Blackfriars Road, S.E.1.

Branches: Bristol · Cardiff · Hanley · Leeds · Liverpool · Manchester · Newcastle-on-Tyne · Nottingham · Portsmouth · Preston · Sheffield · Glasgow · Edinburgh

THE ARCHITECT & BUILDING NEWS

3 June 1954

The "Architect and Building News" incorporates the "Architect," founded in 1869, and the "Building News," founded in 1854. The annual subscription, inland and overseas, is £2 15s. 0d. post paid: U.S.A. and Canada \$9.00.

Published by ILIFFE & SONS LTD., DORSET HOUSE, STAMFORD STREET, LONDON, S.E.1
Telephone: WATERLOO 3333 (60 lines). Telegrams: "ARCHITONIA, SEDIST, LONDON."

Branch Offices: Coventry: 8-10 Corporation Street; Birmingham: King Edward House, New Street;
Manchester: 260 Deansgate, Tel: Blackfriars 4412 (3 lines), Deansgate 3595 (2 lines); Glasgow: 26B Renfield Street.

B.A.G., A.B.T. AND N.A.L.G.O.

THE Royal Institute has ignored the questions put to it in the statement issued at the end of last month by the British Architectural Guild, and has opened negotiations with the Association of Building Technicians.

B.A.G. asked the following questions:—

- i Do the salaried architects of the profession require an independent body to protect their interests?
- ii If so, do they desire that the body should be a purely architectural body and not be diluted either directly or indirectly by crafts and trades?
- iii Should such a body be free, throughout its history, from any question of extreme politics either by active participation or by indirect moral support?
- iv If the answers to these questions are in the affirmative how does B.A.G. fail to meet the requirements?

How can the R.I.B.A. ignore a proposal from a pure virgin and prefer, apparently, the charms of a woman with a past?—(A cartoon by Low has to be imagined here.)

The A.B.T. is affiliated to the N.F.B.T.O. It was originally definitely Left Wing and to-day probably includes a number of communists and sympathizers among its membership. It has, on the other hand, broadened its political views, and has considerable experience in trade union matters. It would be unlikely to fold up even if the R.I.B.A. changed its mind and smiled on B.A.G.

There is the risk, therefore, of two trade unions each claiming to be politically unbiased but mutually inducing in each other left and right tendencies to the detriment of strictly professional and architectural adherence.

In B.A.G. question iii above the implication is

clear that the Guild has no past such as Senator M— would enjoy investigating whereas the A.B.T.... There is a third voice, that of N.A.L.G.O., which commented in the May issue of *Public Service*, the official journal of the National and Local Government Officers' Association as follows:—

"This is the age of trade unionism. With the salaries and conditions of more and more once "independent" professions, from doctors and lawyers to actors and musicians, being settled by collective negotiation, and with the Industrial Disputes Tribunal—usually the final court of appeal should such negotiations break down—barred to all save genuine trade unions, it is not surprising to find many groups trying to jump on to the trade union bandwagon.

The latest example comes from the architects. The Royal Institute of British Architects, having itself tried—and failed—to negotiate for all its salaried members, and having been advised that it cannot itself act as a trade union, has asked its members whether they would like it to set up a separate organization, with R.I.B.A. support and good will.

These developments are understandable. But will they help architects? We think not—for a number of reasons.

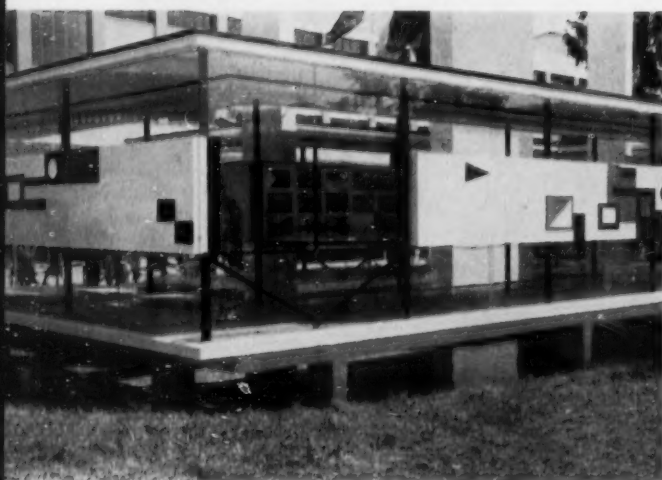
First, a union of architects—as of doctors, lawyers, or any other professional group—would be a craft union and, as such, would run counter to all modern development of trade union practice. That practice has favoured the development of industrial rather than craft unionism, for the reason that it is easier for one body to negotiate for all the employees in an industry. When N.A.L.G.O. negotiates with the local government employers, it speaks for practically all the local government officers in Britain, and the agreements it reaches apply to all. Those agreements may not always be as good or as speedily negotiated as members wish. But, were the staff side to be composed, not of a majority of N.A.L.G.O. members, but of representatives of each of the hundred and one other separate crafts in local government, agreements would not be tardy and inadequate—they would never be reached at all.

Secondly, it would be impossible for any craft union to represent all its members in all the services and industries in which they work. Most of those services and industries already have highly organized and efficient negotiating machines. Any attempt by sectional interests to invade them would merely lead to unprofitable inter-union squabbles from which only the employers would benefit.

Thirdly, the established unions have many years of experience which no newcomer could hope to rival. To cite one example only, N.A.L.G.O. has grown up with public service superannuation, upon the intricacies of which it is recognized as the outstanding authority. What newly-established union could hope to acquire anything like that knowledge and experience, built up by N.A.L.G.O. over half a century?

Lastly, the employers themselves prefer to negotiate with industrial unions, speaking in a single voice, rather than with craft unions speaking in inharmonious chorus.

[Continued overleaf



FOUR PHOTOGRAPHS OF MILAN FAIR BY EDWARD D. MILLS, F.R.I.B.A.

Top pictures: Restaurant and tea terraces with reinforced concrete canopies.

Bottom pictures: Temporary display building for a Shipping Group.

N.A.L.G.O. has no quarrel with any of the craft, professional, or sectional organizations. It is always ready to co-operate and consult with them and to consider and represent their special interests: indeed, it has established machinery for that purpose. It claims no monopoly of wisdom and will always welcome and be ready to profit from constructive criticism from within its membership. But it is convinced, after long experience, that industrial trade unionism is the best answer to the negotiating problem to-day, that the attempt to create separate craft unions can bring only confusion and disappointment, and that sectional groups within the public service can best solve their problems by joining with their colleagues, not by separating from them."

Well, there it is. The odds seem to us on the A.B.T. being the choice of the R.I.B.A. subject to certain conditions which are fairly obvious. After all, most of us have been brought up to believe that the price of liberty is eternal vigilance, and if in spite of this we allow a minority to capture power through the apathy of the majority whose fault will that be?

EVENTS AND COMMENTS

MODERN ARCHITECTURE IN RICHMOND AND TWICKENHAM

My two pictures were taken from consecutive issues of the *Richmond and Twickenham Times* during April. The caption to the flats and shops said: "An example of the 20th century's contribution to local architecture is this block of flats with shops under, newly built by Twickenham Council at Saxon Avenue. Contrasting violently with the graceful and beautiful houses of the 18th and 19th centuries recently featured on this page, the block represents the last word in the packing-case school of modern architecture, and manages in its own way to express much of the harshness of contemporary life."

The following week the second picture appeared under the heading "Attractive Post-War flats" with the caption

"By no means all modern architecture is ugly as this picture of post-war flats at Cavendish Court, Cardigan Road, Richmond, proves." The second picture was published at the suggestion of a reader who wrote to the paper in support of modern building.

Congratulations to the *R. and T. Times* for venturing into the tricky field of architectural criticism. More, please.

C.I.A.M. SUMMER SCHOOL IN VENICE

For the third year running there is to be an architectural Summer School in Venice run by C.I.A.M. It has now been decided to make it a permanent annual event. This year the school will run from September 3 until October 3, and will be held at the University Institute of Architecture. The problem to be set in the school will deal with some aspect of Venice. The Directors of the school will be architects Albini, Gardella, Rogers and Samonà. In addition to the planning and architectural problem there will be lectures on general subjects and visits to the monuments of Venice and its neighbourhood. At the end of the course a jury of eminent C.I.A.M. architects will give a criticism of the work done.

The school is open to final year students, and graduates who completed their training not more than two years ago. Anyone interested should apply without delay to Trevor Dannatt, Hon. Sec., M.A.R.S. Group, 6, Fitzroy Square, W.1. The entry fee for the course is £15,000 (£8 15s). Students to make their own arrangements for travel, board and lodging. Application for lodgings in dormitories, and meals, can also be made through M.A.R.S. The cost is expected to be about £1,500 (17s 9d) a day.

Students will receive free passes to Museums in the city and transport expenses in connection with conducted tours will be met by the school. Tickets at reduced prices will be available for the Biennial Festival, the Film Festival, the Music Festival, and the Theatre.

Some C.I.A.M. scholarships are available in the form of exemption from fees, and may include a contribution

to living expenses. Write to M.A.R.S. about it, but do not delay.

IT'S OUR ONLY HOPE, BAGENAL

The last Ordinary General Meeting of the Session at the A.A. always starts with a slight feeling of tension. This lasts until the results of the Council Election have been read out. The names of the full Council for the next Session will be found on another page. There are three new members, two of whom have served previous terms. Michael Austin-Smith was on the Council from 1950 to 1953, and Max Lock from 1940 to 1942. Howard



Above : Cavendish Court, Richmond; architect : Eric Lyons.
Left : Shops and flats, Butt's Farm Estate, Hanworth; architect : H. S. Gardiner, Assistant Borough Architect, Borough of Twickenham.



Lobb is the newcomer. At the meeting Sir Hugh Casson, the retiring president, thanked his Council for the hard work they had done, with particular thanks to the outgoing members, A. R. F. Anderson, W. W. Atkinson, and the Hon. A. de Yarborough Bateson. Casson has skillfully guided the Council through a difficult year; years at the A.A. are always difficult, and I defy any past-president to say that he took on the job of president with a light heart.

The highlight of the evening was an address by Mr. Hope Bagenal. This was preceded by the presentation to him of a drawing by H. Chalton Bradshaw, a "lion's head on a cyma," an ancient fragment, selected from among Bradshaw's drawings by Mr. Bagenal himself. In thanking the A.A. for the gift Mr. Bagenal referred to the president's "friendly exaggerations," and said that he owed a very great deal to the A.A., where he had lectured for the past 33 years. He said that he had found friends and colleagues and had been provided with a

library—he was librarian for 20 years—a rostrum and a certain liberty to pursue the life of a student. His paper, "Some African Studies," was based on a recent tour, and was a masterly summary of his observations and his thoughtful deductions from what he saw and heard. He referred to the great buildings rising in Johannesburg as "Fugitive towers of commerce," and said that in the future they would be connected by "suspension bridges, companion ladders and spider galleries." He said that he was "not among those who join in praise of reinforced concrete." Style he described as a "generalizing of climatic compulsions." Mr. Bagenal covered a very wide field in his paper, from Apartheid to the traditional building methods of Africa, and from folklore to damp failures. The whole blended into that rolling prose and delivered with that diamond clear enunciation for which he is famous.

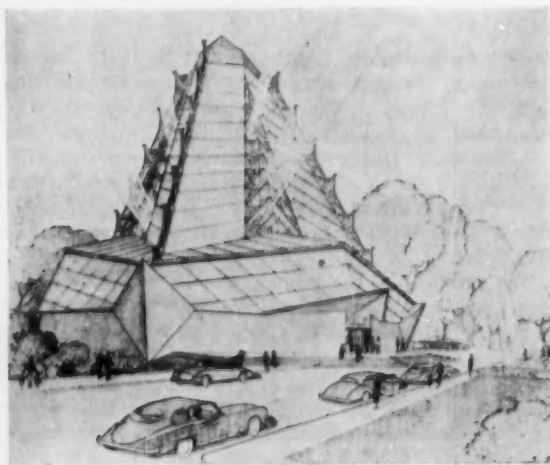
Mr. John Murray Easton, proposing the vote of thanks, said that he would have liked to have celebrated the occasion with an ode of praise, but he could not find any words to rhyme with Bagenal and so there was no ode. Mr. George Atkinson, seconding, underlined what Mr. Bagenal had said about the peaceful way of life in African villages by reading from Livingstone.

An important point referred to by both Mr. Bagenal and Mr. Atkinson was that in the African village the women are responsible for all building maintenance. It is their job to keep the plaster work in order and free from cracks.

Let us hope that Mr. Bagenal will from time to time be tempted from retirement on his Sabine Formula—the president's joke, not mine—to give us a paper on no matter what, for he is always well worth hearing. Many who heard him last week agreed that he was at his best.

THE WOOD BICENTENARY

I have some additional notes on the Wood bi-centenary about which Bryan Little wrote last week. The unveiling on May 22 had to be in the Octagon and not in Queen Square because of heavy rain. The flag was undraped from a portrait and not the plaque, by Mr. J. Jefferiss Mathews, Vice-president R.I.B.A. The exhibition has already proved a great success and is to be shown elsewhere in this country and possibly in the U.S.A.



Frank Lloyd Wright's design for a new Philadelphia Synagogue. It shows a building 100 feet high with an auditorium to seat 1,200.

John Wood the elder is popularly supposed to have lived at No. 24, Queen Square, to which house, in fact, the plaque referred to is attached. A letter in *The Times* on May 27 cast some considerable doubt on the correctness of this attribution. Mr. Walter Ison says in his letter that a serious study of the rate books and other relevant documents has shown that Wood had lived in the centre house of the south side of the Square, now part of the Francis Hotel. For most of Wood's lifetime the occupant of No. 24 was Francis Fauquier, Esq., probably the former Governor of Virginia. ABNER.

BRITISH ARCHITECTS' CONFERENCE

THERE has never been an annual architects' conference quite like the one which began and ended last week at Torquay, the first time such a conference had been held so far west. There have been other excellent informal gatherings; tours to please the eye and interest the mind; grand civic receptions; conference dinners when the speeches were not too long (this time they might have been "all-out" for the lowest score of minutes on record, but for a last-wicket stand). But never before have we had papers packed with so much meat, delivered with such extraordinary tightness and wit, backed up by a discussion equally agreeable. I can remember one occasion, not many years ago, when the attendance in the audience on the second day's proceedings missed by a hair's breadth being outnumbered by the V.I.P.s on the platform, who mustered less than double figures. This year, the hall was as packed on the second day as it was on the first, and I heard one member say he had not taken his seat on the whole-day tour to Plymouth, much as he wanted to see that city, in order to be present.

The president's inaugural address, which was preceded by an address of welcome by the Mayor of Torquay and followed by a short speech by the President of the Devon and Cornwall Society of Architects, may be read on the opposite page. To imagination must be left his geniality and the humour of his observations which added so much to the proceedings. No doubt it was that encouragement which prepared the way for Edward (Flanagan) Mills and Bill (Graham) Allen (with acknowledgements to Mr. Aslin's vote of thanks) to give such stimulation to everybody by their talk and a lesson in delivery as well. Many people who read the paper, and to quote Richard Sheppard, who seconded the vote of thanks, you really should read it (*A. & B.N.*, 20.5.54), must have wondered how delivery was going to work out. It was as informal and, I believe, unprepared, as the paper was considered. The first day's proceedings set the tone. For once, it appeared, architects were batting on the same side as well as on the same wicket. The result, besides a double century for Allen and Mills, was some excellent batting by the remainder of the team who spoke in the discussion.

Everyone's interest was held as much on the second day, when techniques was the subject, as on the first, when materials were dealt with; no small feat of showmanship. As on the first day, a short summary of the written paper was given first, followed by excellent slides in black and white and colour, and actual samples of material, in this case hard set mastic resoundingly dropped by Allan at a psychological moment, instead of a display of German bricks and blocks. At the start, Bill Allen did the talking, with appropriate interruptions from Edward Mills. Each was armed with a microphone; they often reversed roles. They made each day's discussion easy to follow, because comments from both followed immediately after every speaker. Edward Mills and Bill Allen have made history, said the president at the Conference Dinner. G. M.

TORQUAY CONFERENCE: ADDRESS BY MR. HOWARD ROBERTSON, M.C., A.R.A., S.A.D.G., P.R.I.B.A.

IT is only when we architects tear ourselves away from routine work that we can recover our sense of perspective. That is one great benefit of these annual conferences. Our meetings—formal and informal—provide an invaluable opportunity for exchanges of views and experience. We may indeed discuss many questions which crop up at Council and Committee meetings at Portland Place. But we do it here in another atmosphere—one in which tension is relaxed—and geniality prevails.

This year the conference theme is "Materials and Techniques," presented in a truly remarkable Paper by Mr. W. A. Allen and Mr. Edward D. Mills. This theme is, refreshingly, both architectural and practical. It is the kind of theme which can never be presented under routine Council or Committee business. And that is why I am personally so glad that the Conference deals with such progressive and interesting material instead of concentrating on the necessary but often tedious topics of administration or business which predominate in London and in the Allied Societies.

Our Council has had before it this year many vital questions. The latest to be publicized, and perhaps the most controversial, is the question of Trades Union representation for architects. This has had, and continues to be given, the most earnest consideration. But let us not be unduly swayed by advice—sometimes pontifical, sometimes friendly, and sometimes menacing—from external sources, as to what action we should take. Some of this advice is ill-founded, and some is contradictory and therefore cancels out. What we have always to keep before us is that the well-being of architects, and architecture, lies mainly in our skill and competence in performance. It is in public appreciation based on good performance that our real future lies. Success in achieving the best possible working conditions and status is to be sought. But not at the expense of a whole-hearted and increasing attempt to improve both our architectural education and our performance in practice, so as to be fully worthy of our clients' confidence.

In other words, the eventual status of a profession depends upon the respect in which its members individually and collectively is held. There is no other road. And whatever political or social action the Institute decides to take, we must, I feel, avoid at all costs any damage to the status of architects as men and women following an exact-

ing calling in which none but the highest possible standards are acceptable.

The respect in which architecture is evidently held in this genial part of the world is reflected to-day in the pleasantest possible way, by the welcome given to us by the Mayor and Corporation of Torquay, and the hospitality so graciously to be extended to us. We who are visitors may well feel that the pleasure is ours only because we have ambassadors at court in the shape of the Devon and Cornwall Society of Architects. Vyvyan Salisbury, the President, and Edward Narracott, his predecessor and Chairman of the Conference Committee, have clearly worked hard and successfully, with the help of Mr. Martin Fleet as Honorary Secretary, to ensure that the Mayor should feel us worthy of the great courtesy he is extending to us. And we are in the debt of the Mayor and Corporation not only for courtesy, but for the very tangible hospitality of the forthcoming Garden Party and the Civic Reception and Dance.

If the Mayor will allow me, I would also like publicly to record our appreciation of the working contribution made by His Worship's secretary, Mr. Rooke.

May I, finally, tender grateful thanks to those who are providing hospitality on the Conference tours, and in particular to the Mayor of the great City of Plymouth whose growing reconstruction is a matter of such major architectural interest.

NEWS OF THE WEEK

Kirkcaldy Competition Result Dunnikier Park Crematorium

First Premium of £300: Messrs. Sanger & Rothwel, York Chambers, Yorkshire Street, Oldham.

Second Premium of £200: W. F. Howard, F.R.I.B.A., F.R.I.A.S., 103, Old Brompton Road, London, S.W.7.

Third Premium of £100: John A. Wells-Thorpe, A.R.I.B.A., c/o Laurence, Gotch & Partners, 21, Richmond Place, Brighton.

Commended: Messrs. Lavender, Twentyman & Percy, 2, Waterloo Road, Wolverhampton; John Peters, A.R.I.B.A., and Walter Scott, A.R.I.B.A., 40, Maria Street, Kirkcaldy; and Mrs. Heather Shipman, A.R.I.B.A., and S. G. E. Shipman, A.R.I.B.A., "Arnsbrae," Cambus, by Alloa. (Alphabetical order.)



Photo: John H. Reynolds

The 17th Century Butterwalk, Dartmouth. Badly damaged during the war, it was re-opened in April 1954.

The Assessor was Dr. Ronald Bradbury.

Two hundred and thirty seven designs were submitted.

The winning designs will be published in a future issue.

IN PARLIAMENT

Improved Production

Mr. Marples, Parliamentary Secretary, Ministry of Housing and Local Government, stated in reply to Sir Waldron Smithers that the number of man-hours required to build an average traditional three-bedroom house of 1,029 sq ft was according to reports of the Girdwood Committee, 2,092 in 1939, 3,034 in 1947, and 2,630 in 1951. He pointed out that the 1953 figure represented 20 per cent less than in 1947 and 10 per cent less than in 1951. While this improvement was good, the House would agree that further improvement was both possible and desirable. (May 25.)

Westminster Office Garages

Sir Herbert Williams asked the Minister of Housing and Local Government what provisions were contained in the licences issued for the erection of office buildings in Victoria Street and Dean Farrar Street that they should have adequate garage accommodation. Mr. Marples, the Parliamentary Secretary, said the Minister was informed that following consultation with the London County Council the plans submitted for planning approval included provision for garaging 17 cars under the Victoria Street building and 20 cars under the building in Dean Farrar Street. (May 25.)

CORRECTION

New Engineering College for Rangoon. On page 643 of last week's issue dates of completion were given as 1956 and 1957. These should have been 1955 and 1956 respectively.

A.A. Council, 1954-5

The result of the ballot for the election of the officers and council of the Architectural Association for the session June 1, 1954-May 31, 1955, was announced on May 26. *President:* Peter Shephard, B.Arch.(L'pool), A.R.I.B.A., A.M.T.P.I., A.I.L.A. *Vice-Presidents:* Bryan Westwood, F.R.I.B.A., A.A.Dipl.(Hons.); Gontran Goulden, T.D., A.R.I.B.A. *Hon. Secretary:* John Brandon-Jones, A.R.I.B.A., A.A.Dipl. *Hon. Treasurer:* D. Clarke Hall, F.R.I.B.A., A.A.Dipl. *Hon. Editor:* Prof. Basil Ward, Hon. A.C.R.A., F.R.I.B.A. *Hon. Librarian:* Miss Barbara Price, M.A.(Cantab.), A.R.I.B.A., A.A.Dipl. *Ordinary Members of Council:* B. L. Adams, A.R.I.B.A., A.A.Dipl.(Hons.); J. M. Austin-Smith, M.C., T.D., A.R.I.B.A.; H. T. Cadbury-Brown, F.R.I.B.A., A.A.Dipl.(Hons.); Sir Hugh Casson, R.D.I., M.A.(Cantab.), F.R.I.B.A. (Past President); Neville Conder, A.R.I.B.A., M.S.I.A., A.A.Dipl.(Hons.); Oliver J. Cox, A.R.I.B.A., A.A.Dipl.(Hons.); Alexander Gibson, F.R.I.B.A., A.A.Dipl.(Hons.); Howard Lobb, C.B.E., F.R.I.B.A.; C. Max Lock, F.R.I.B.A., M.T.P.I., A.A.Dipl.; Edward Playne, D.S.C., F.R.I.B.A., A.A.Dipl.; Graeme Shankland, M.A.(Cantab.), A.R.I.B.A., A.M.T.P.I., A.A.Dipl.

A.A. Scholarships in Architecture

The Council of the Architectural Association announces the award of the following scholarships in architecture at the Architectural Association School of Architecture:—

The Metal Window Scholarship (Value £75 p.a.): Miss A. M. Harvey (St. Helen's School, Northwood.) *The Metal Window Senior Scholarship* (Value £50 p.a.): Mr. R. H. Gordon (Architectural Department, Hammer-smith School of Building).

(The above Scholarships are presented by The British Metal Window Manufacturers' Association, Limited.)

Senior Staff Scholarship (Value £60 p.a.) (presented by the Senior Staff of the A.A. School of Architecture): Mr. J. M. Mange (Westminster School). *The Natural Asphalte Scholarship* (Value £50 p.a.) (presented by The Natural Asphalte Mine-owners and Manufacturers' Council): Mr. R. G. Gibson (Bedales School). *The Patent Glazing Conference Scholarship* (Value £50 p.a.) (presented by The Patent Glazing Conference): Mr. G. M. Kassaboff (Wycliffe College).

EXHIBITIONS

The R.I.B.A. Travelling Exhibition "Home and Surroundings" will be shown at the Northern Architectural Association, 6, Higham Place, Newcastle upon Tyne, from June 23 to July 7. Admission free.

C O R R E S P O N D E N C E

The British Architectural Guild

To the Editor of A. & B. N.

Sir,—In pursuance of what it believes to be in the best interests of all concerned, the Council of The British Architectural Guild has decided to postpone its proposed direct approach to the profession in regard to membership, pending the holding of a joint conference.

Invitations are being extended to representatives of—

The Royal Institute of British Architects;

The Institute of Registered Architects;

The Faculty of Architects and Surveyors, Ltd.;

The Incorporated Association of Architects & Surveyors; and the unattached architects' representatives on A.R.C.U.K.

The intention is to find, if possible, a common basis of agreement by which the Guild could serve the interests of the entire profession as a protective body for salaried architects.

The conference will be at Browns Hotel, Albemarle Street, Thursday, June 3, 1954, at 4 p.m.

I am, etc.,

R. ISTED,

Secretary,

The British Architectural Guild.

Domestic Refuse

To the Editor of A. & B. N.

Sir,—You recently published a review by "Dutch Uncle" of the Institute of Housing's Report on Refuse Disposal in Flats and, as a member of the Committee which prepared this publication, I was interested in his comments. He makes one criticism which, however, is so wide of the mark from the Manager's standpoint that I just cannot allow it to go unchallenged.

The Institute of Housing's Report suggests that there should be no bend or offset at the base of the chute, which should discharge vertically over the container. "Dutch Uncle" suggests that this is very impractical and that such bends or offsets are essential when more than one container has to be placed at the base of the chute to accommodate the refuse collected between visits. This comment is not up to his usual standard and I should be happy to show him some cases where this problem has been solved either by having two chutes each discharging over its own container, the whole being housed in one refuse chamber; or by building the refuse chamber large enough for two containers (which he clearly contemplates doing) and transposing the full container with the empty container when necessary. My remarks are based on fairly extensive experience of this problem over a good many years' employment with an authority which possesses many thousands of

flats and many different types of refuse system. Anyone who has seen the shocking results caused by blockage at the base of the chute will, I am sure, agree with the Institute of Housing's suggestion that chutes should be vertical through their length.

"Dutch Uncle" may rest assured that members of the Committee were aware of the contents of the Section on Flats in "Planning" by "E. & O.E." but, whilst they agree with most of the points made therein, there are some points of definite disagreement. For example, the Section on "Planning" says that the delivery end of the chute should have a bell-mouthed hopper fitting which should fit closely to the upper edge of the container. The Institute's Report indicates that the bottom of the chute should be "well above the top edge of the container in order to prevent coning-up. It will be appreciated that when the container is full, refuse builds up on the top to a height governed by its natural angle of repose. If the vertical distance between the top of the container and the bottom of the chute is too small, the refuse will build up in this way until it blocks the chute, with very unpleasant results. Attention by caretakers or estate porters may avoid this to some extent but cannot always eliminate the risk. If there is an excess of rubbish, it is better that it should fall over the sides of the containers than that it should build up into the chute. Obviously every effort should be made to avoid the risk of either of these faults occurring." Anyone who has ever seen a chute which has been blocked for a height of two or more floors in this way will be under no illusions about the necessity for avoiding blockages or coning-up.

The Institute's Report has endeavoured to summarize the lessons taught by practical experience, and having seen many types of development in various parts of the country it is only too obvious to me that many designers would benefit considerably by reading both "Planning" and the Institute of Housing's Report.

I am, etc.,

J. P. MACEY,

Housing Manager,

City of Birmingham.

The Truscon Travelling Scholarship

The Travelling Scholarship for the study of reinforced concrete construction offered by The Trussed Concrete Steel Co., Ltd., details of which were given in the *Architect & Building News* of February 11, 1954, has been awarded to Mr. W. A. Gibbon, B.A., A.R.I.B.A., of Manchester. Mr. Gibbon will be accompanied by Mr. H. W. Beckingham of the Company's staff, to whom a similar Scholarship has been awarded.

NEW PITHEAD BATHS, NUNEATON

Architect: S. T. WALKER

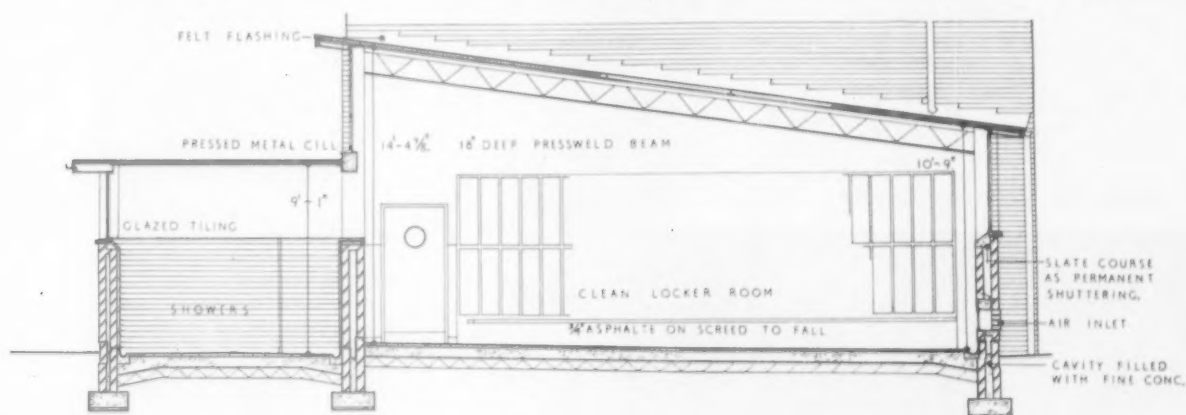
THE primary function of pithead baths is to enable men who have been working in the Colliery to remove dirt before going home; men are thus able to travel to and from their work in normal outdoor clothing and their sense of well-being is increased. In this new building, which is a short-term scheme, each of the 816 men employed at the colliery have a clean and dirty locker with its own key. Lockers are heated so that both clean and dirty clothing can be dried between shifts.

The general planning is arranged to ensure continual circulation from one end of the building to the other.

Facilities are provided for hosing down floors completely between shifts. Other facilities include cycle storage, lavatories, mechanical boot cleaning equipment at the pit entrance end, boot greasing and bottle filling.

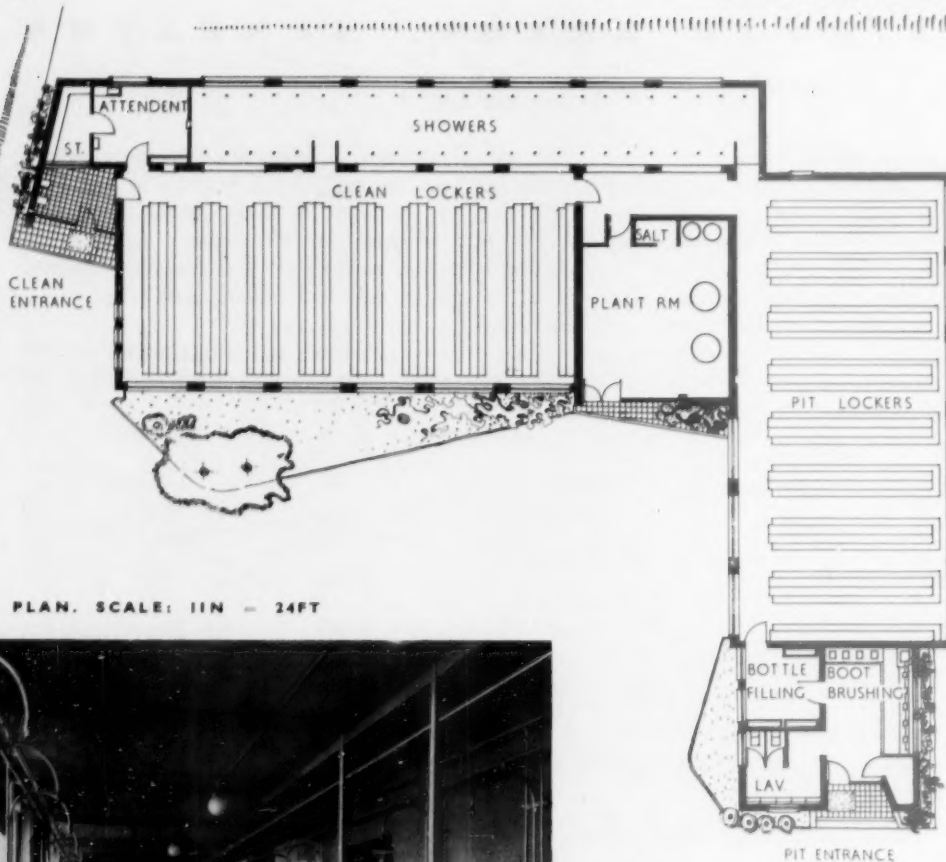
Construction and Finishes

The structure consists of load-bearing brick piers and cavity brick walls, the footings of which, as well as the



TYPICAL SECTION. SCALE: 1/16" = 8 FT





Left top: Showers

Bottom: Plant Room

Pithead Baths, Nuneaton

concrete floor slab, are reinforced against mining subsidence. Roofs are monopitched of channel reinforced woodwool slabs covered with built up bituminous felt and supported on light steel trusses. Windows are standard metal industrial type. Finishes include asphalt floors and skirtings, fairfaced brick walls and tiled dadoes in showers.

Services

Extract fans are used to give cross ventilation at the rate of 6 changes of air per hour in locker rooms and 8 changes in showers. Water storage for 24 hours, making a total of 11,500 gallons, is provided in tanks over the plant room.

Locker rooms and showers are heated to a temperature in the region of 100° F., by means of low-level coils covered with sheet metal guards.

Approximately 8,000 gallons per day of softened hot water is provided by means of calorifiers, which, together with the heating system, is served by steam from the colliery at about 50 lb. pressure.

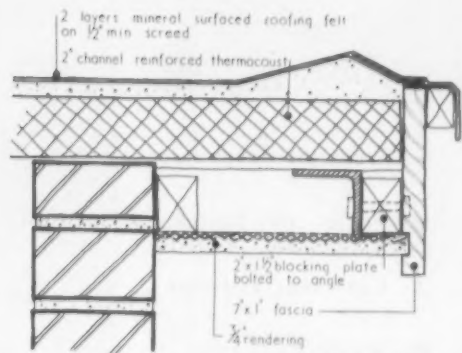




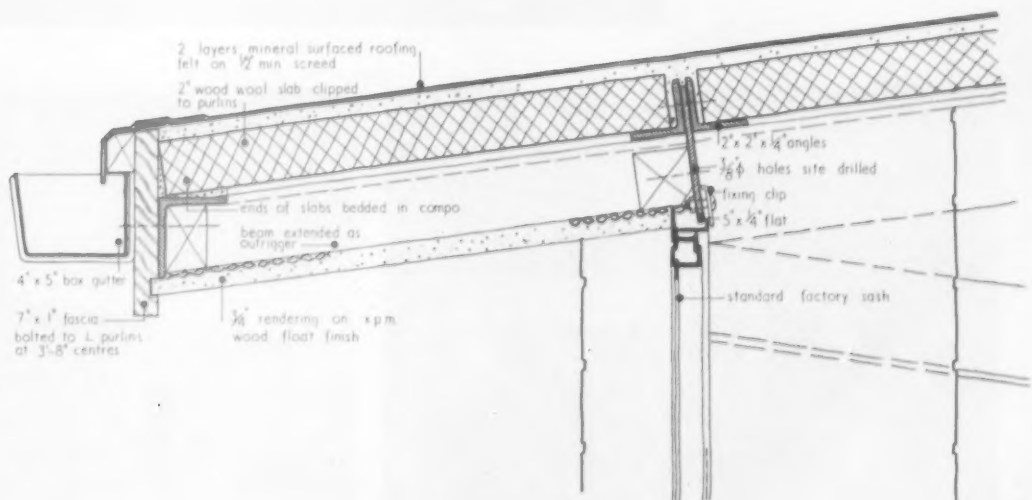
Dirty Locker Room

General Contractors:
G. E. & W. Wincott

Bricks: H. C. B. Hednesford. Boot Cleaning Machine: Bell & Smart, Ltd. Cycle Racks: Alfred A. Odoni & Co., Ltd. Drying Cabinet & Lockers: The Speedwell Gear Case Co., Ltd. Electrical Installation and Ventilation: C. Stanley Tagg, Ltd. Felt Roofing and Asphalt Paving: Permanite, Ltd. Heating Installation: Seymour, Sweet & Co., Ltd. Industrial Vacuum Cleaner: The British Vacuum Cleaner and Engineering Co., Ltd. Ironmongery: Walker & Wood, Ltd. Metal Windows: Henry Hope & Sons, Ltd. Partition Walls, Wall Tiling and Faience: S. G. B. (Dudley), Ltd. Planting: Judkins (Coated Macadam), Ltd. Pressed Steel Water Tank: Braithwaite & Co., Ltd. Reinforcement to reinforced concrete floors and foundations: Matthews & Mumby, Ltd. Roof Steelwork: T. Partridge & Co., Ltd. Roofing: Thermacoust, Ltd. Sanitary Fittings: Rowe Bros. & Co., Ltd. Water Softener: The Permutit Co., Ltd.



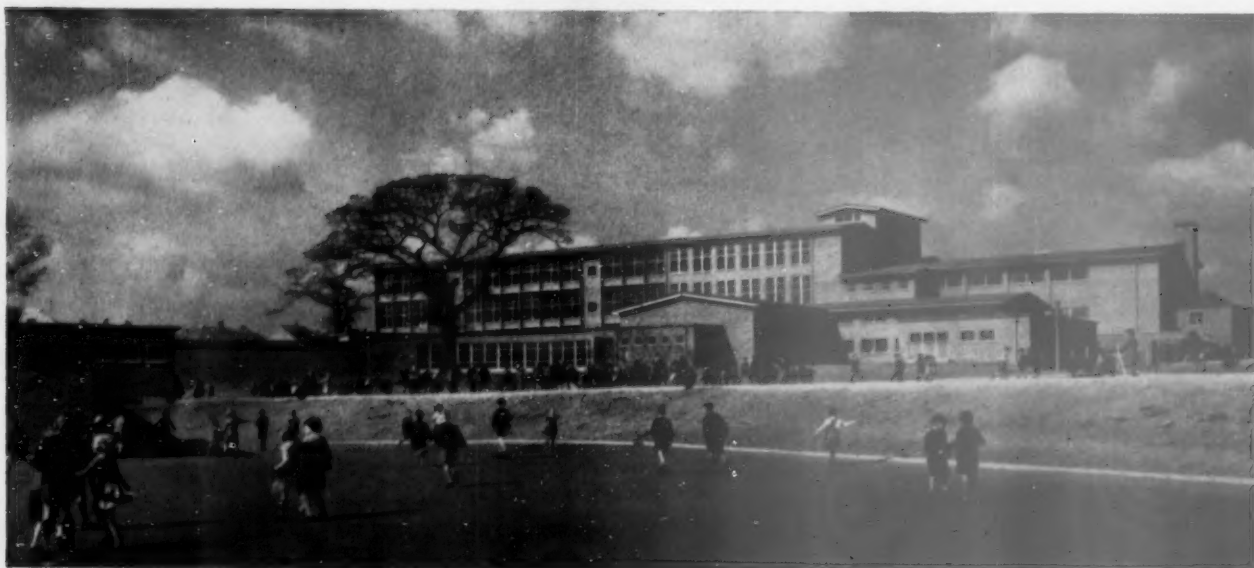
VERGE DETAIL.
SCALE: $\frac{1}{8}$ F.S.



**EAVES
DETAIL.**
SCALE:
 $\frac{1}{8}$ F.S.

LYNDON GREEN PRIMARY SCHOOL.

architect: S. T. WALKER



1

2

1. From the South-East

2. From the South

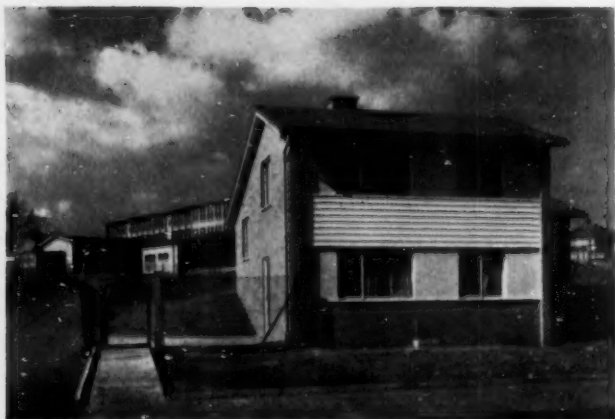
3. Caretaker's Lodge

4. Main Entrance



3

4



BIRMINGHAM

THE site of 6½ acres is a little distance to the east of the main Birmingham-Coventry Road in a newly developed residential district. An irregular fall of 30ft occurs from west to east. The juniors' entrance is sited from Wensley Road, with infants' entrances from Wychwood Crescent. The existing cul-de-sac road is utilized in part as a service road.

Planning

The scheme is divided into three main blocks. The juniors' school, three storeys high, at the north-west and highest part of the site; the infants' block, mainly single-storey high, with a south aspect on the lowest part of the site, with the dining-room block between, also single storey and at an intermediate level. The ground-floor level of the juniors' block is consequently about the level of the roof of the nearest infants' classroom block.

The infants' block is connected to its dining-room by means of a corridor, curved so that an existing oak tree can be retained.

The main entrance with main staircase is situated between the juniors' classroom block and the assembly hall.

The planning of the juniors' classroom block on three floors frees a restricted site for other purposes. Vertical circulation is by means of one main and one subsidiary staircase; in addition a dual-purpose passenger/goods lift is provided.

The two dining-rooms are sited at right angles to the main block, the juniors' dining-room being accessible from the main entrance hall. The servery is sited between the dining-rooms, with the kitchen, etc., winging out and forming a service yard at lower ground-floor level.

It is intended that the juniors' assembly hall should be licensed for public entertainment. This opens out on to an elevated terrace on the sunny aspect. An exhibition hall is provided at first-floor level (over the entrance hall) with top light. This opens out to form a balcony to the assembly hall.

Services

The heating chamber and meter rooms are sited below the juniors' assembly hall. Owing to the slope of the ground this situation provides excellent natural light and ventilation at the rear as well as direct access to the service yard. Sectional boilers with hopper-type automatic stokers supply impelled low-pressure hot water to mains throughout both schools. Mains are accommodated in floor and ceiling ducts. Accelerator pumps, calorifiers, etc., are also housed in the heating chamber.

The buildings generally are heated by means of hospital-type radiators, except the reception classroom which is sub-floor heated. Natural ventilation is provided generally, although extractor fans and ducts are fitted in the kitchen.

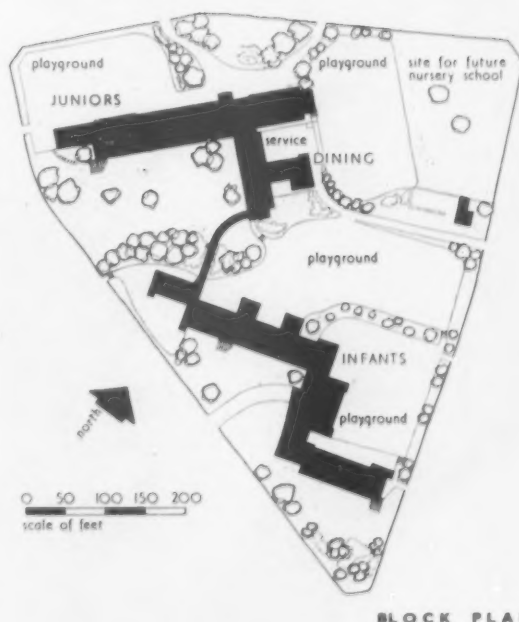
Construction

The juniors' school block is of steel frame construction with steel trusses, reinforced concrete suspended floors,

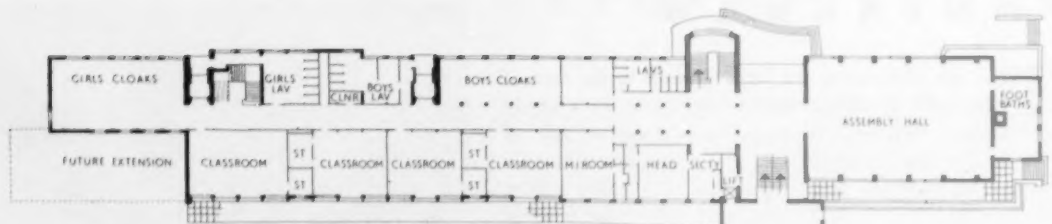
[Continued on page 663]



The South Elevation from the Dining-room



BLOCK PLAN



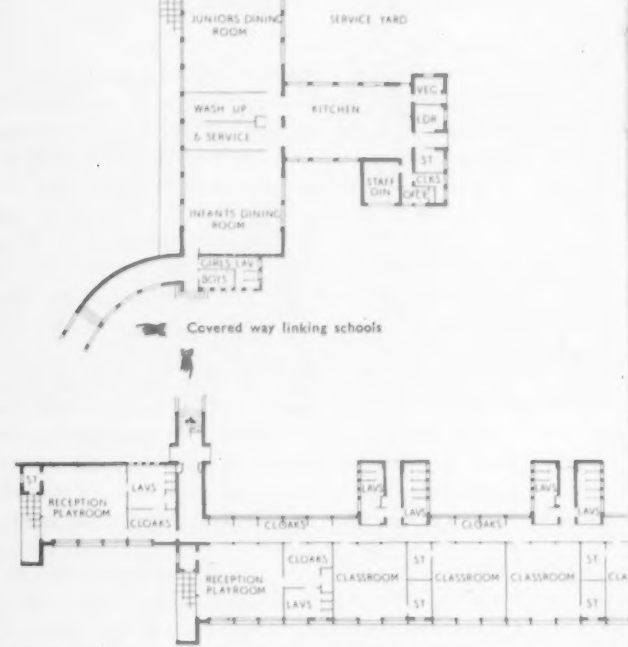
GROUND FLOOR PLAN: JUNIOR SCHOOL

Lyndon Green Primary School

Staff-room

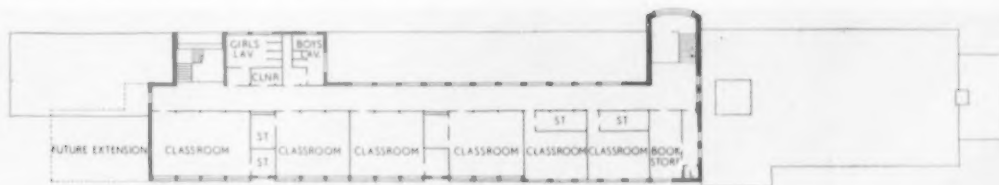


Classroom

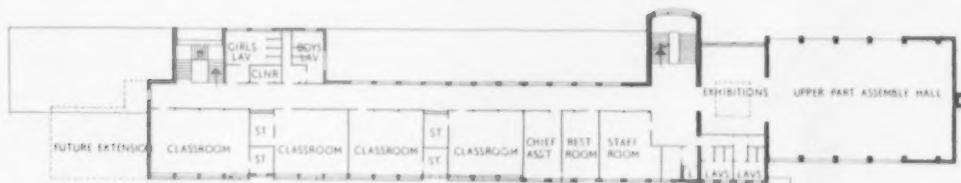


GROUND FLOOR PLAN: INFANTS' SCHOOL

SCALE: 1 IN = 48 FT



SECOND FLOOR PLAN



FIRST FLOOR PLAN

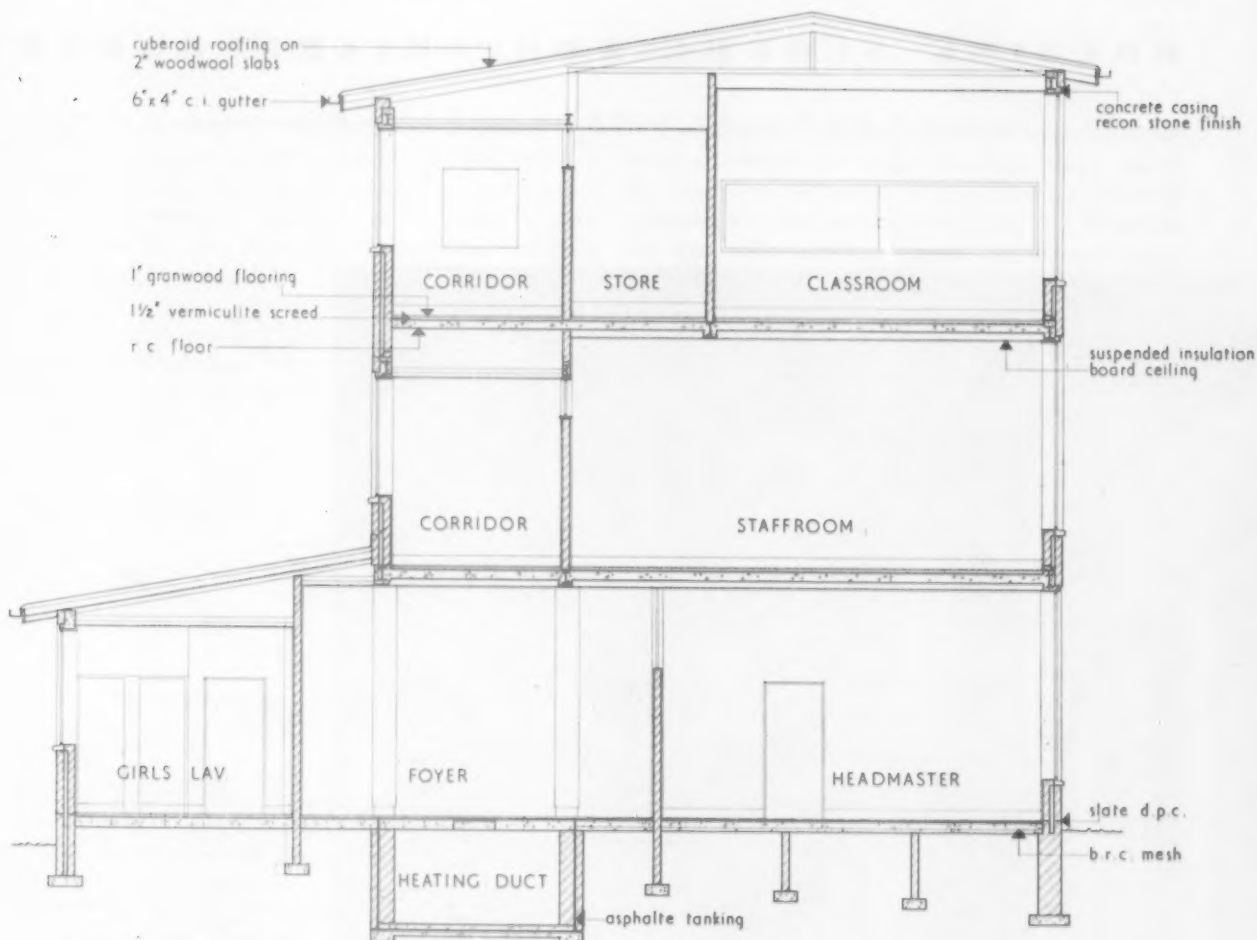
Juniors' assembly hall: below, main entrance

General Contractors:
J. R. Deacon Ltd.

Sub-contractors: Aluminium Roofing: Wm. Briggs & Sons, Ltd. Aquaria: H. Morris & Sons, Ltd. Ash Hoist: Herbert Morris, Ltd. Asphalt: Ragusa Asphalt Paving Co., Ltd. Bricks-Facing: Blockleys, Ltd. Curtains: Lee, Longland & Co., Ltd. Electrical Installation: Frank Burton (Junior School). Electric Lift: Evans Lifts, Ltd. Expanded Metal for Suspended Ceilings: The Expanded Metal Co., Ltd. Fencing and Gates: Penfold Fencing & Engineering, Ltd. Flush Doors: Adamite Co., Ltd. Handrailing and Balustrading: Bigwood Bros. (Birmingham), Ltd. Heating: Walter Armstrong, Ltd. Insulation Board Ceilings: Rudders & Paynes, Ltd. Ironmongery, Cloakroom Equipment: James Gibbons, Ltd. Metal Windows and Door Frames: Henry Hope & Sons, Ltd. Patent Flooring: The Greenwood Flooring Co., Ltd. Reconstructed Stonework: Constone, Ltd. Reinforced Concrete Staircases: John Ellis & Sons, Ltd. (Junior). F. Bradford & Co., Ltd. (Infants). Reinforced Concrete Work: Constone, Ltd. (Infants' School). Diespeker & Co., Ltd. (Junior School). Roller Shutters: Roller Shutters, Ltd. Roofing: Midland Asphaltic Roofings. Sanitary Fittings: Rowe Bros. & Co., Ltd. Structural Steelwork: Edward Wood & Co., Ltd. Wood Strip Flooring: Bennett's Wood Flooring (Tungit), Ltd.







TYPICAL SECTION. SCALE: 1/4\" = 8 FT

Lyndon Green Primary School

Two views: Indoor Garden, Juniors' School



Continued from page 659]

and brick cladding. Projecting precast concrete vertical fins and *in situ* concrete canopies are provided on the south sides to classrooms in both schools to reduce sun glare.

Classroom blocks of the infants' school are a combination of precast and *in situ* reinforced concrete framework; this method was adopted to economize on structural steel requirements. Elsewhere brick walls and piers support light steel trusses.

Roofs supported on steel trusses are of 2 in wood wool slabs supported on galvanized tees finished with built-up roofing. Suspended floors are floated with 1½ in sound-insulating screed and ceilings generally of "floating" insulation board.

Finishes

Floors: Granwood blocks to classrooms and corridors; beech strip to assembly halls; heather brown quarry tile floors to lavatories and cloakrooms. Plastered walls generally throughout with semi-hard board pin-up boards in classrooms. Ceilings generally in suspended insulation board.

HOUSING SCHEME FOR FRIERN BARNET

architect: HOWARD SADLER, A.R.I.B.A., A.M.I.Struct.E.



The end of Block C
from the side
of Block A

General Contractor:

H. Fairweather & Co., Ltd.

Subcontractors:

Acoustic Flooring: Armstrong
Cork Co., Ltd.

Balustrading: Clark Hunt & Co.,
Ltd.

Bricks: Henry J. Greenham (1929),
Ltd.

Gill Tiles: Langley London, Ltd.

Doors: Gliksten Doors, Ltd.;
Rippers, Ltd.

Electrical Installation: The Ber-
keley Electrical Engineering
Co., Ltd.

Fencing (Playground): Clark Hunt
& Co., Ltd.

Glazed Wall Finishes: Whitney
Fairchilds, Ltd.

Granolithic Floors: The Grano-
paving Company.

Heating (Fires and Surrounds):
John Knowles & Co. (Lon-
don), Ltd.

Ironmongery: Nettlefold & Moser,
Ltd.

Kitchen Fittings: E. & H. Grace,
Ltd.

Laundry Gas Equipment: Eastern
Gas Board.

Lettering: William Pickford, Ltd.

Metal Windows and Door
Frames: The Crittall Manu-
facturing Co., Ltd.

Precast Concrete Facing Slabbing
and Air Bricks: Stuarts
Granolithic Co., Ltd.

Radio Aerials: Eastern Electricity
Board.

Refuse Chute Hoppers: Hay-
wards, Ltd.

Reinforced Concrete Floor and
Staircases: Diespeker & Co.,
Ltd.

Roof Tiling: Henry J. Greenham,
(1929), Ltd.

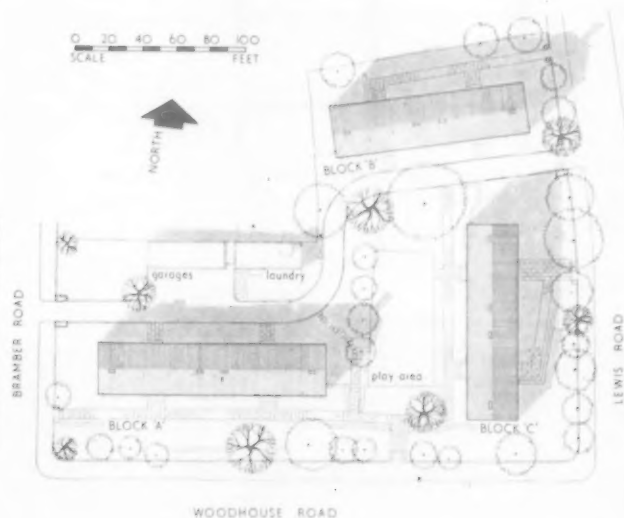
Sanitary Fittings: O'Brien Thomas
& Co., Ltd.

Tree Planting and Turfing: F. O.
Thompkins & Co.

URBAN DISTRICT COUNCIL

THIS Housing Development was completed and occupied in December, 1953. The site, which is 1.60 acres gross in extent, falls to the south and west.

Accommodation is provided for 36 families in three blocks of flats, each three storeys in height and containing 12 flats. Block A contains 8 three-bedroom flats superimposed upon 4 two-bedroom flats; the other two Blocks B and C each contain 8 two-bedroom flats superimposed upon 4 one-bedroom flats. A total of 136 persons are housed on the site at a density of approximately 85 persons per acre.



A small estate laundry containing four gas-equipped washing cubicles and drying chambers, along with a toddlers' room and lavatory accommodation, is provided, in preference to the provision of washing facilities within the flats. Five lock-up garages and a maintenance store link up with the laundry.

This site is particularly fortunate in possessing many large and mature trees. Hawthorn hedging is used in preference to metal railings, as it is considered to be more suited to this site. The boundary of the site is formed with a high precast concrete curb, against which the turfed areas abut. A number of trees growing out of the banked ground along the Woodhouse Road frontage are enclosed by precast vertical slabbing, to retain adequate soil cover for the roots.

A standardized system of room grouping and the economy in the use of space has controlled the character of the unit flat plans. The kitchen and bathroom are grouped to economize in plumbing and drainage, adjacent to each staircase; whilst the first bedroom is linked with the living room, thus making available hot-air heating in the former by the use in the living room of a back boiler type New Marathon all-night-burning stove.

Kitchen fittings are identical in all kitchens and consist of ventilated larder with terrazzo shelves, dresser with lino-top worktable, drawers and cupboards; dry-goods store and refrigerator recess; sink and double drainers; worktable top and pot shelf; and suspended ceiling airers. Gas or electric cooker and refrigerator are installed by the tenant.



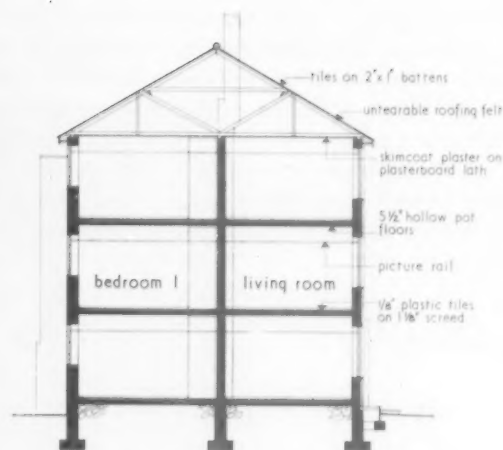
Block C

All cupboards and wardrobes extend from floor to ceiling and thus avoid dead and unusable space. Fused electric socket outlets are provided in all rooms.

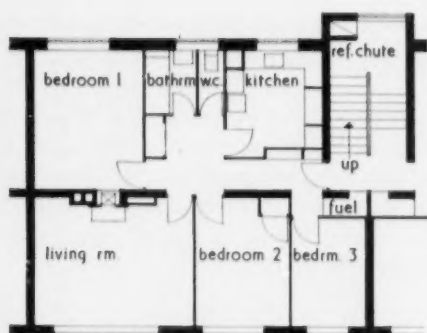
Each tenant has a cycle or pram store, accessible under cover, at ground-floor level, by the main entrance to each group of six flats.

The construction consists of simple load bearing external and spine brick walls, with reinforced concrete and hollow tile suspended floors. All windows are metal set direct into brickwork or precast concrete frames. Surrey stock facings are used throughout, and concrete panels, with exposed aggregate, form the spandrels between the living-room windows. The roof is timber framed and covered with dark brown pantiles on an underlay of bitumen felt. The staircase, and corrugated external spandrels, are of smooth-faced reinforced concrete, with granolithic treads, risers, strings, skirtings and landings. Internal partitions are of 2in and 3in hollow tile construction, with hard wall plaster finish.

SCALE: 1IN = 14FT



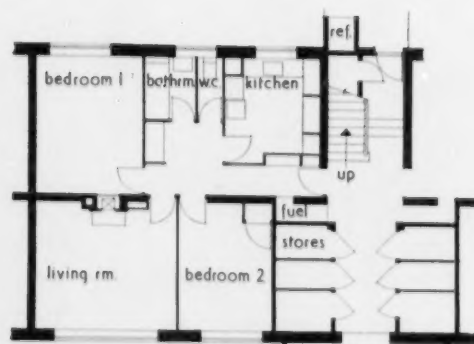
CROSS SECTION, BLOCK A



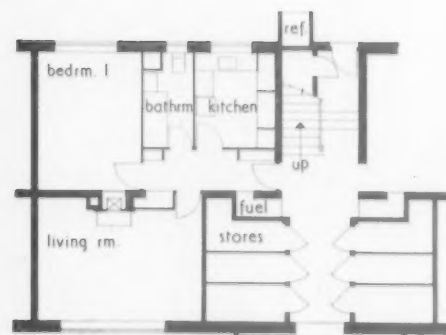
BLOCK A, UPPER FLOORS



BLOCKS B AND C, UPPER FLOORS



BLOCK A, GROUND FLOOR



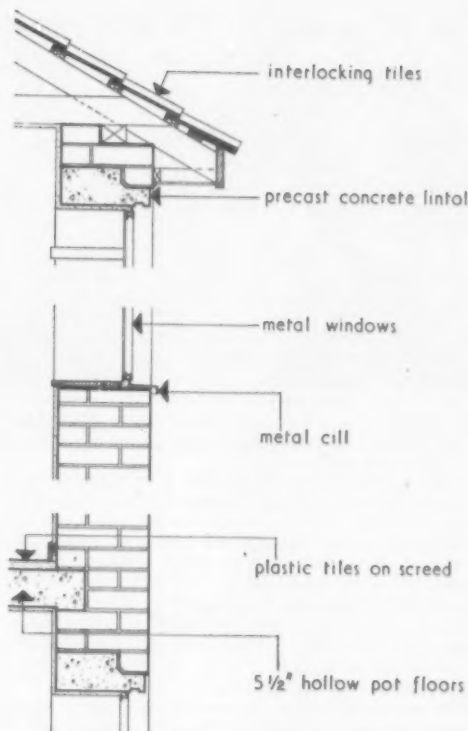
BLOCKS B AND C, GROUND FLOOR

Pressed steel door frames are used throughout and all frames extend to the ceiling to provide both fixed and movable fanlights. Internally the staircases are finished with cement spray glaze; living rooms, bedrooms and halls finished with one coat of Duramatt; whilst kitchens and bathrooms are painted three coats oil colour. Accotile flooring is used throughout, except for small areas in the kitchens and bathrooms, below cookers and fittings, which are finished in granolithic.

Refuse disposal is by means of a vertical chute system with access hoppers on staircase half-landings. Each refuse chamber is lined with glazed tiling and provided with a wash down valve and a gulley connected to the drains. The container is of a vertical type and is transported to the loading vehicle by a tubular framed trolley which is housed in the maintenance store.

Space heating and hot water supplies in the flats are provided by means of the back boiler. Hot water in the laundry is provided by multi-point Ascot water heaters, and the space heating in the toddlers' room is provided by means of a guarded gas radiator.

The contract figure in 1951 was approximately £61,000.



TYPICAL WALL SECTION: 11 IN - 2 FT

Architect :

E. Howard Sadler, A.R.I.B.A.

Assistant :

Terrence C. Snow

Quantity Surveyors :

William C. Inman & Partners



West Entrance, Block B



Typical kitchen

Surface Finishes of Concrete

by J. GILCHRIST WILSON, A.R.I.B.A., of
The Cement and Concrete Association

AS concrete in its initial stage is a plastic material, and will reproduce the pattern and texture of the surface against which it is cast, considerable scope is offered in the production of effects by designing the formwork with this end in view.

Board-Marked Finishes

The technique of using board-marked finishes to provide scale and interest to concrete surfaces is fully appreciated in Switzerland and California, which, unlike Britain, enjoy a clean, bright atmosphere, so that full shadow value can be obtained from even the slightest change in surface.

Generally, the boarding should be sound, straight and free from large loose knots or other defects, and new and old timber should not be mixed in the same elevation, as the colour of concrete cast against new timber is quite different from that cast against used.

Vertical joints should be evenly distributed over the surface, and no vertical joint should be less than 2ft from a corner.

Horizontal joints should line up with other features in the design, and construction joints should coincide with joints in the form boarding.

Smooth Board-Marked Surfaces

These are produced by dressed T and G boards. The boards should be uniform in thickness so that there will be no offsets at the joints.

Rough Board-Marked Surfaces

These are produced by the use of sawn boards, the texture depending upon the nature of the cut. Square edges permit a certain amount of leakage, which will emphasize the joints on the concrete, and if the boards are wide there may be warping, which will accentuate the joints still further.

Raised Joints

By chamfering the edges of the boards the joints can be made to project, the size of the projection depending on the depth of the chamfer; with 1in boards it should not be more than $\frac{1}{4}$ in. The faces of the chamfer should not be inclined at more than 45 deg. to the board face, and a better appearance is obtained if the inclination is rather less.

Recessed Joints

Grooves or recessed joints may be produced by fixing timber fillets to the face of the formwork covering the joint

between the boards. The fillets may be rectangular, vee or circular in section. If rectangular, the bottom face must be slightly bevelled, to facilitate withdrawal from the concrete and produce an outward slope in the concrete which will shed rainwater.

The fillets may be lightly fixed by nailing, so that in the event of difficulty in removing the forms the fillets can be left in position for removal separately; or they may be fixed by screws from the outside face of the formwork, in which case the screws should be removed, and the fillets left in place to shrink, and the concrete to harden, before any attempt is made to remove them. This is a slightly more expensive method of fixing, but in some cases can be justified.

Overlapping Joints

By using weather boarding fixed in the reverse direction to its normal use as a cladding, a strong, regular marked surface can be produced. The use of weather boarding in this manner calls for a backing of close boarding.

Finishes Obtained by the Use of Special Formwork Linings

The two most common formwork linings are plywood and compressed hard fibre boards. They are used to produce smooth surfaces in which the joint lines are generally made as fine as possible.

The fixing of these linings should be to a close boarded backing by small flat-headed nails, evenly spaced near the edges and at regular distances over the area of the sheet, so as to hold the sheet flat and prevent buckling. The joints between the sheets may be filled with putty, plaster or white lead, and lightly sand-papered. If desired, joints can be raised or recessed, or patterns formed on the surface, by planting on timber fillets of any suitable section, as already described.

Other linings are flat and corrugated metal and asbestos sheets. Absorbent linings which remove a limited amount of water from the surface of the concrete and prevent the formation of voids due to entrapped air have also been used. Their advantages are unfortunately offset by the fact that they can normally be used only once.

Hessian and rubber sheets are two other materials that have been tried for the purpose of imparting a texture to concrete surfaces. The difficulty with materials of this type is the fixing, and their use would appear to be confined to panel work, where the joints between sheets can be masked by timber fillets.

Another formwork lining having as its object the production of an exposed aggregate finish on in situ concrete is that known in America as the Aggregate Transfer Method. In this method the special facing aggregate is transferred from the form face to the structural concrete. This is accomplished by lining the formwork with thin plywood or other suitable material, to which the special facing aggregate is attached by means of an adhesive.

Exposed Aggregate Finishes

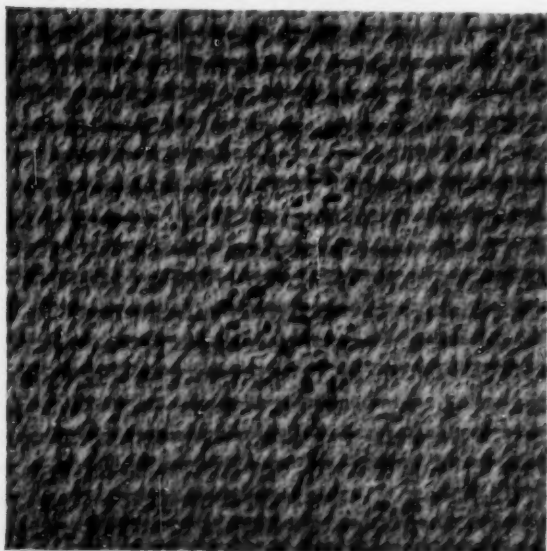
Attractive effects can be obtained by the removal of the outer skin of cement and fine material, which normally forms on all concrete, and exposing the aggregate.

Aggregates which fulfil the requirements necessary for good concrete are many and varied, and amongst them can be found a range of attractive colours which will look particularly pleasing when exposed.

The exposing of the aggregate reveals unsuspected imperfections in the concrete, honeycombing and segregation becoming particularly noticeable, and construction joints more evident. For this reason, then, the greatest care is necessary with the mix and the placing of the concrete, when the aggregate is to be exposed, regardless of the technique used for the purpose.

Brushing

The cheapest and simplest method of removing the cement skin is by brushing whilst the concrete is still sufficiently



Various textured rubber sheets have been tried as a means for obtaining interesting concrete surfaces.

soft. Using ordinary Portland cement, the mix period up to which the aggregate can be exposed in this way is about 24 hours after placing, depending on the temperature. The brushes used for the purpose should be either stiff bristle or wire, and plenty of water should be used during the treatment to clean each particle of aggregate.

The period up to which the aggregate can be exposed by brushing can be considerably extended by using a retarding liquid on the face of the formwork. Unfortunately, there does not appear to be any way of ensuring that the results obtained by using these retarders will be consistent, and if the formwork has to be kept in position for more than 24 hours, then some mechanical means of exposing the aggregate appears to be the most satisfactory solution.

Tooling

Working the hardened surface of the concrete with tools is effective and widely applicable. Not only is the surface skin removed, but the aggregate is fractured, often with increased good effect. The surface may be hammered, comb chiselled, tooled or point treated, depending upon the nature of the structure and the texture desired.

The most common form of tooling is bush hammering, using either hand- or power-operated tools. The effect of the hammer is to crush the cement film, and the aggregate immediately in contact with it, the depth to which the aggregate is crushed depending upon the power or the pressure exerted by the operative.

The concrete should not be tooled until it is sufficiently hard (from four to eight weeks, depending upon the cement used and the time of the year); otherwise there is a tendency for the pieces of aggregate to be torn out, leaving unsightly pitting. Particular care should be taken at arrises to prevent spalling, and it is an advantage to leave them with a plain margin or to tool them by hand.

The cover to reinforcement must be considered in relation to the treatment employed, and an allowance made for the amount it is proposed to tool away.

Grinding

It is not a practical proposition to grind large areas of in situ concrete; in fact, this treatment is almost entirely confined to precast work of the terrazzo type.

The most important consideration so far as grinding is concerned is to choose an aggregate that is amenable to the grinding process. Ordinary gravel is most unsuitable; the choice is confined to marbles, spars and some granites. Hopton wood will take a very good polish.

There are two methods of grinding, wet and dry. With dry grinding, the operatives need to wear masks to protect their lungs and eyes from dust; wet grinding is to be preferred, as the ground-off material works into a paste and assists the grinding action.

Grinding is sometimes used to remove unwanted fins due to escape of mortar between formwork boarding.

Applied Finishes

Painting

The cheapest treatment for concrete surfaces is undoubtedly a cement paint. Cement paints are particularly suitable for application to a concrete surface, as they are not affected by alkalis, and are sufficiently porous to permit the concrete to dry out without pushing off the paint film. The concrete surface to be painted should be quite free from oil, grease, soot, etc. If for any reason the concrete is porous it should be saturated with clean water, and the moisture allowed to dry off the surface before applying the first coat, which should be well rubbed into the surface.

Cement paints are supplied in a wide range of colours, but only the very lightest should be used externally, owing to the possibility of efflorescence appearing on the surface. No one can tell you how to prevent its occurrence. The Cement and Concrete Association is carrying out research on the subject, but meanwhile it is better to play for safety, and to use a colour which will make it less noticeable should it occur.

The Building Research Station in Digest No. 17 deals with Colourwashes (including Paints) on External Walls. This has a table giving the properties of various types of colourwash, and is of considerable general use, and I would



External renderings finished with a scraped texture weather more evenly than floated finishes and are particularly free from crazing.

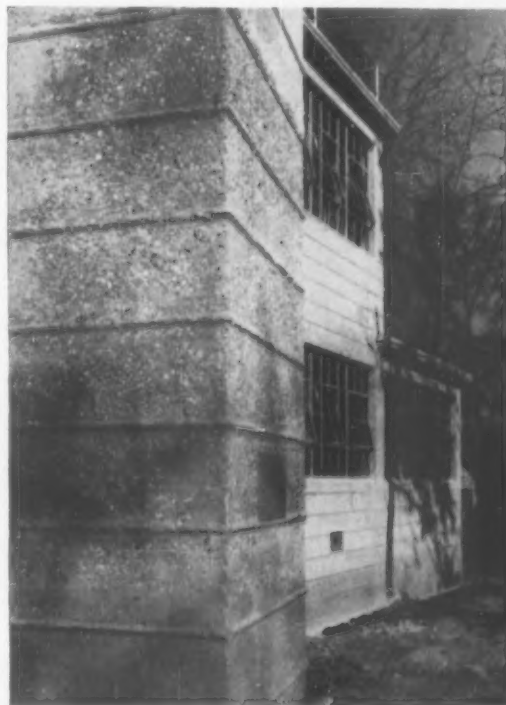
recommend everyone to have a copy in his personal files.

Where a gloss finish is required it is of the utmost importance to use a paint which will not be affected by the alkalis in the concrete. Most paint firms can supply a neutralizing or alkali resisting primer; nevertheless, it is advisable to use a paint having a special base, such as, for instance, chlorinated rubber, as this is unaffected by concrete. Another very important point is to apply the paint when the concrete has had time to dry out thoroughly. Before application the surface of the concrete should be thoroughly wire brushed and all loose dust removed.

If any patching is necessary, this must be done well in advance of painting, to ensure that the new material has properly matured.

Rendering

The main problem in connection with rendering on in-



Marlborough College Science Building. An example of the use of board-marked finishes and exposed aggregate concrete. The aggregate was exposed by wire brushing on removal of the formwork.

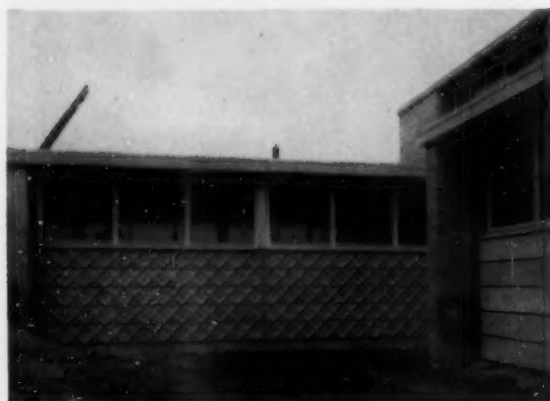


The Five-Fifty Building, Miami, Florida. An example of the use of storey height concrete facing slabs.

Detail of wall panel fixing used on the Five-Fifty Building.

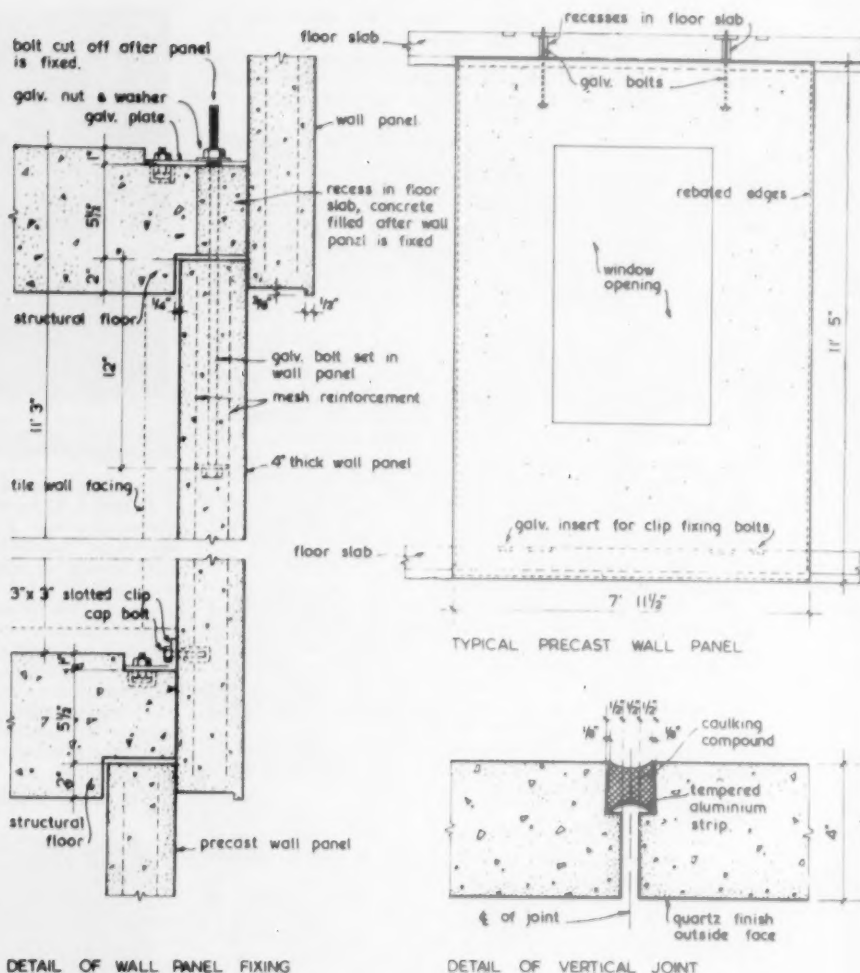
Surface Finishes of Concrete

Concrete cladding units used on a School in Ipswich. The fact that concrete is a plastic material in its early stages gives scope for the production of interesting surface patterns.



situ concrete is concerned with the provision of an adequate key between the concrete and the rendering.

When it is known that the surface is to be rendered the procedure should be to brush the concrete and thoroughly rid it of all form oil, immediately on removal of the formwork, then to apply a spatter-dash coat consisting of 1 part cement, 1½ parts sand. This coat must be applied whilst there is still plenty of moisture in the concrete, otherwise



DETAIL OF WALL PANEL FIXING

THE FIVE-FIFTY BUILDING, MIAMI, FLORIDA.

the bond between the spatter-dash and the concrete is likely to be affected.

Where the concrete has been up for some time, and it is decided to render the surface, then it will be necessary to use a special key coat, such as is provided by the use of Cemprover No. 4. The mix for subsequent coats of rendering will depend upon the purpose for which the rendering is required—if for æsthetic reasons alone the mortar should not be richer than 1 cement, 1 lime, 5-6 parts sand, and the finish should be such as to produce a rough texture: for instance, Tyrolean Cullamix or the Scraped Finish.

The mix used for rendering on other forms of concrete depends upon the nature of the backing. On no account should the rendering be stronger than the material to which it is applied otherwise there is a great danger that the shrinkage of the rendering will cause a bond failure.

The rendering technique used in Norway, and to some extent in Sweden, is based on the use of a well-graded crushed granite sand, and a white or coloured cement applied to a thickness of approximately ½ in. Before the mortar has had time to harden the surface is worked with a felt-covered float, constantly cleaned and dipped in water, until the surface eventually consists almost entirely of coarse aggregate.

Precast Slabs

The facing of buildings with natural stone is accepted as a traditional building technique. In recent years, cast and reconstructed stone has largely supplanted the use of

(Continued on page 671)

LOCKERING AT GRIFF N°4 COLLIERY PITHEAD BATHS



The equipment installed at Griff No. 4. Pithead Baths is type "A" Double Tiered Lockering (heated by steam coil), and also a Drying Cabinet with plenum heating. Full descriptive literature and data sheets are available covering this, and other Welfare Lockering details.

A call by post or 'phone will bring you the immediate service of our local installation engineer.

W. A. WOODLAND, Esq., F.R.I.B.A.
Divisional Architect - - National Coal Board

S. T. WALKER, Esq., CHARTERED ARCHITECTS
Birmingham, 1. - - - Associated Architect

G. E. & W. WINCOTT, LTD.
Nuneaton - - - General Contractors.

SPEEDWELL

GEAR CASE CO., LTD.

TAME RD., WITTON
BIRMINGHAM, 6

Telephone: EAST 2261

Telegrams: SPEEDWELL BIRMINGHAM

• • •

CLEAN SKYLINES....

E.M.I. CENTRAL AERIAL SYSTEM
*provides facilities for all Radio and
 Television receivers in this block of flats.*



Within each flat the E.M.I. central aerial system terminates in the small panel on the skirting board as shown above.

AS the designers of the existing Electronic Television System in use today, E.M.I. technicians have long realised that special facilities are required for flat dwellers. Arrays of individual aerials on a block of flats is technically unsatisfactory besides detracting from the appearance of the building. When third band TV transmissions begin the problem grows more complicated.

E.M.I. have developed a complete system which, from a single aerial on the roof ending in neat unobtrusive plug-in points in the flats, will provide first-class radio and television facilities for the tenant to plug-in his own set. There is no limit to the number of flats which can be served.

It is always our hope that the Architect or Contractor will consult us at an early stage, so that our very simple requirements can be included in the plans.

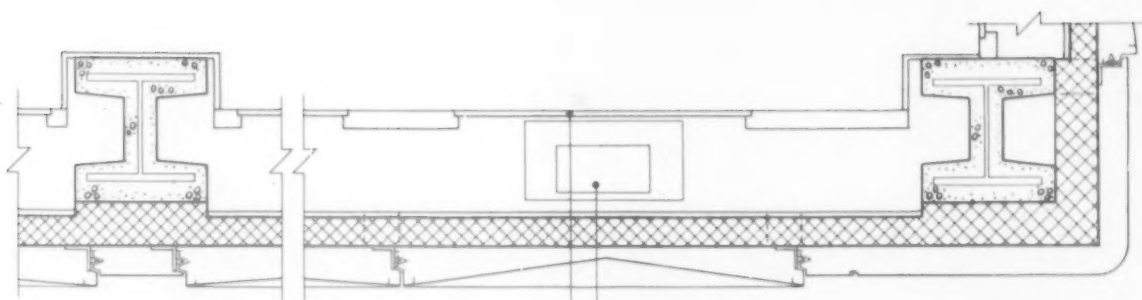
Write or telephone to:

E.M.I. SALES &

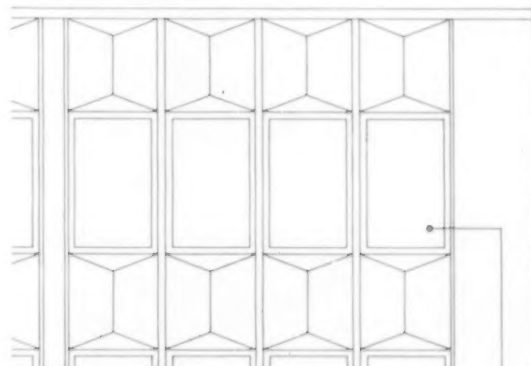


SERVICE LTD.

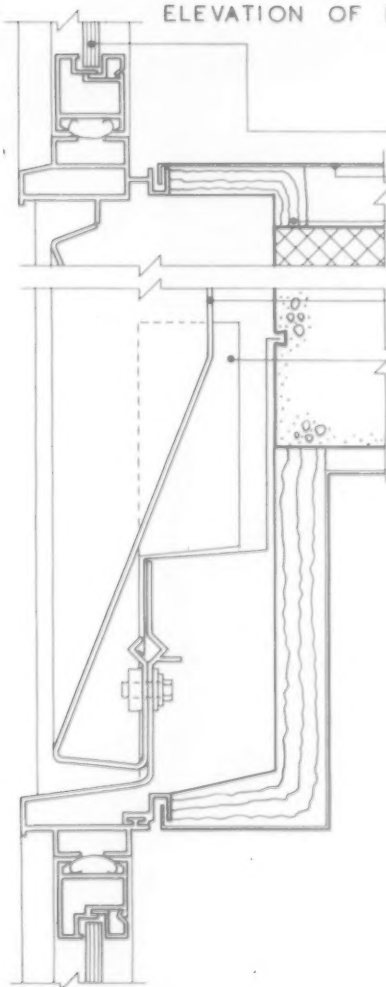
RELAY DIVISION, HAYES, MIDDLESEX. TELEPHONE: SOUTHALL 2468



PLAN



ELEVATION OF END BAY



DETAIL OF SILL & HEAD

SIDE HUNG INWARD SWING WINDOWS
IN ALUMINIUM FRAME

1/4" PLATE GLASS

PRESSED METAL SILL

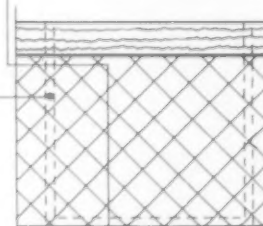
FIBRE GLASS INSULATION

10 GAUGE
ALUMINIUM CLADDING

ALUMINIUM
CATCH PAN

FIXING LUG

3 1/2" X 3 1/2" X 1/4"
STEEL ANGLE 2'6" LONG



PLAN OF CLADDING

HEATER

METAL ENCLOSURE WITH
HINGED ACCESS PANELS

SLATE COPING

2" CEMENT FINISH

WATERPROOF MEMBRANE

1" SCREED COAT

PUMICE CONCRETE FILL

3 1/2" X 3 1/2" STEEL ANGLE

VENETIAN BLIND BOX

CONTINUOUS FLASHING



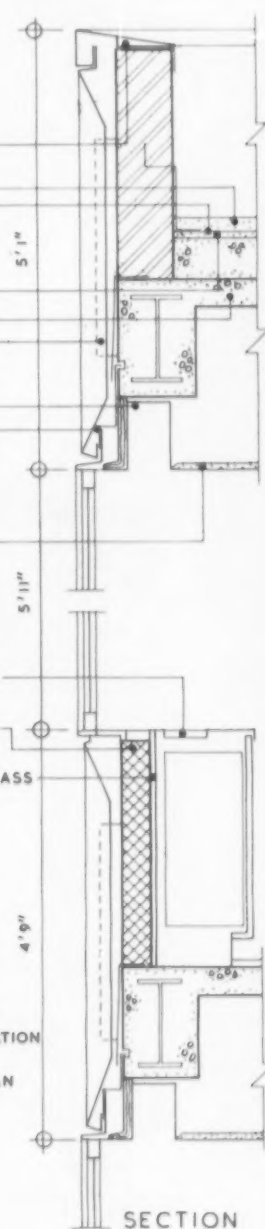
ALUMINIUM
CATCH PAN

1/2" Ø ALUMINIUM
BOLT & WASHER

PRESSED METAL TRIM
& FIBRE GLASS INSULATION

ALUMINIUM CATCH PAN

PLAN OF JAMB



SECTION

SCALES 1/8" 1'0"
3/8" 1'0"
& QUARTER
FULL SIZE



ALUMINIUM CLADDING, OFFICE BUILDING, NEW YORK
ARCHITECTS: EMERY ROTH & SONS

From "ENGINEERING"—

"The three-bay aluminium hangar at London Airport designed and built by S.M.D. ENGINEERS LTD., has a clear span of 125 feet . . . (there is) also a further hangar of 200 feet span for the de Havilland Aircraft Company and it is understood that, in this case, aluminium was found to be the cheapest form of construction . . . in the sphere of large-span buildings and bridges it is hoped that engineers will be quick to realise its potentialities."

For all large-span structures—

CONSULT

S·M·D
ENGINEERS LTD

2 BUCKINGHAM AVENUE · SLOUGH · BUCKS

Telephone: SLOUGH 23212

WORLD LEADERS IN ALUMINIUM CONSTRUCTION

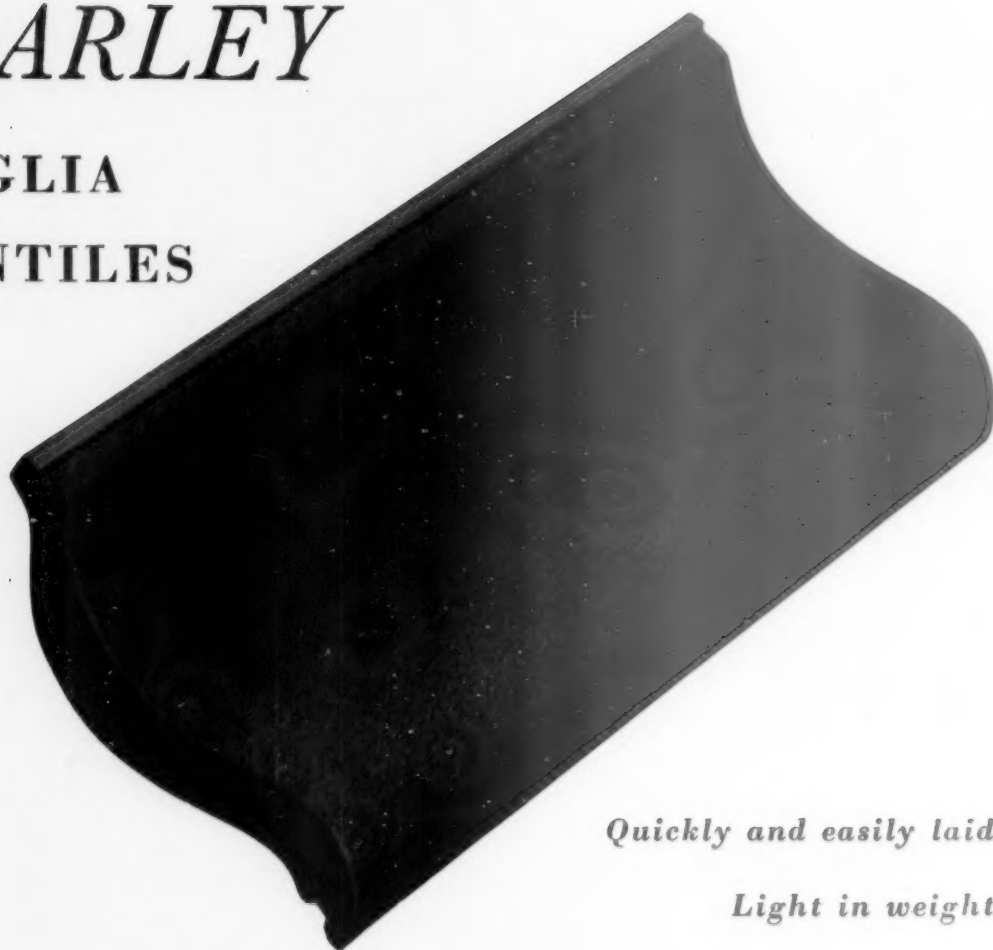
Hangars Nose Docks Works Buildings and Extensions Storage Sheds
Roofing Industrial Garages Bungalows Classrooms Special Structures



MARLEY

ANGLIA

PANTILES



Quickly and easily laid

Light in weight

Economise timber

All Marley tiles are surfaced with coloured mineral granules which ensure natural weathering and beauty. And all Marley tiles are covered by the Marley dual guarantee: (1) That Marley tiles will not laminate or decay for 50 years (2) Free maintenance of roof tiling fixed by Marley craftsmen for 10 years.



"Not for an age—but for all time"

Send for full details and specifications

TECHNICAL DATA

Gauge	Lap	No. of Tiles		Feet Run of Batten		Approx. Weight of Tiling in lbs.	
		per sq.	per sq. yd.	per sq.	per sq. yd.	per sq.	per sq. yd.
12"	3"	150	13.5	100	9	900	81
11"	4"	164	14.8	109	9.8	1,000	90
10"	5"	180	16.2	120	10.8	1,100	99

Marley Anglia tiles have a variable gauge which should be utilised to avoid cutting tiles at top courses.

The Marley Tile Company Ltd., Riverhead, Sevenoaks, Kent. Sevenoaks 2251-6

Scotland: Bishopbriggs 1093 Wales: Pencoed 376 Northern Ireland: Belfast 24447 Eire: Dublin 51794

MARLEY

natural stone, owing to the saving in cost, and the fact that dowel and cramp holes can be readily cast in the slabs during manufacture.

The possibilities for colour and texture using precast slabs are enormous. Many of the most colourful natural aggregates are unsuitable, or are too expensive, for normal structural concrete, but when used as an exposed aggregate held in place by a (coloured) cement mortar they can be relied upon to withstand frost and atmospheric action for an indefinite number of years. Pattern is provided both by the size and shape of the aggregate used and the dimensions

and jointing of the slabs. Further advantages of using precast facing slabs are that they are made in a factory under controlled conditions, so that should any particular slab fail to come up to standard it can be scrapped at very little cost, and that as the slabs can be used as one face of the formwork their use should show a definite saving in this connection, which can be set against the initial cost of the slabs.

Besides their use as permanent formwork they can also be used as an applied finish to brick or concrete blockwork, or as cladding to a steel or concrete frame.

Review of Planning Decisions in 1953: VII

Time Conditions

BY FRANK LAYFIELD

THE Town and Country Planning Act, 1947, authorizes the local planning authority to grant permission for development subject to conditions which limit the life of that permission (S.14). There are, of course, limits set to the exercise of this power by local authorities both those fixed by law and those settled by the Minister as a matter of general policy. These conditions are of fairly frequent occurrence and are likely to have a serious effect upon any development on which they are imposed. It may, therefore, be of interest to consider the limits that are imposed in practice on the use of these conditions.

The Importance of Compensation

The Minister has made it clear on many occasions that planning powers should be so operated that they do not deprive a man of compensation to which he would normally and legitimately be entitled. This is why he frowns on attempts by local planning authorities to impose conditions which require that the development concerned should be completed or commenced within a fixed period of time. Thus in one instance in London conditions were imposed which required that the work of building a hotel and shops should be commenced within 12 months and completed within 24 months. At the enquiry:—

"It was agreed by the parties that the conditions fixing a time limit for the commencement and completion was the sole point at issue between them."

The Minister, in discharging the condition, said that in all the circumstances "he considered that the limitation was unreasonable." If permission is granted, subject to a condition that the work shall be commenced by a certain date, and it is not so commenced, then the applicant, if refused an extension, is then deprived of his right to compensation for abortive expenditure. If, of course, he is sure to get such an extension then the original condition is pointless. The Minister has pointed out that (Circular 58/51)

"This might not be unreasonable if the delay were always due to the developer himself; but developers

frequently need to lay their plans well ahead and many factors may (particularly under present conditions) falsify their expectations.

However, the Minister has recognized that there may be times when this form of condition would be justified but has said that its use should be limited to occasions

"Where there is *special* reason to believe that planning proposals for an area will need substantial revision, but the degree of risk is not sufficient to justify outright refusal: and the local planning authority should always be prepared to show cause both for the use of the condition and the particular period chosen."

An even more definite view is taken by the Minister of conditions which seek to fix the time of completion of the work and he says, in the same circular, that

"The more extreme form . . . — that requiring that the development shall be *completed* within a fixed period—should never be used. Otherwise, the owner of a half completed building may find himself, through no fault of his own, not only deprived of the right to complete it but also unable to claim compensation under Section 22."

It is of particular interest in this connection to note a comment by the Minister in a letter of July last. Dismissing an appeal made against a decision of the East Barnet U.D.C. he went on to say that he understood that

"A permission to develop the land for eight houses was granted in 1946, subject to a condition requiring the development to be carried out within three years. The Minister is advised that failure to observe a condition does not invalidate the permission."

Attempts to Limit Compensation

The Minister has often made it clear that planning powers are to be used only for planning purposes, that is, to secure the best use of land. The power to impose a time limit is, of course, one such power and must not be improperly used. He has made it plain that a time limit could not, for example, be imposed purely to hold down the cost which a local authority might have to pay for land. In a case of some nursery

land at Cheshunt the decision letter observed

"It was stated on behalf of your Council that they proposed at some future date to acquire the nursery and to incorporate it in the adjoining public park. The condition [which limited the life of certain greenhouses] is intended to restrict the value of the land to its present use value because the Council feel that they would otherwise find it financially impossible to carry out this proposal."

It appears that the Council do not object to the proposed greenhouses as such, but only to their value for removal purposes . . . the Minister considers that no sufficient planning reason has been shown for restricting the permission to twenty years."

The condition was accordingly discharged.

Economic Considerations

The probable life and cost of buildings are matters which are directly relevant to the length of life, if any, which should be placed on the grant of permission. The Minister's attitude to this matter was explained in a recent decision in which a limit of some 22 years had been placed on a permission to erect a foundry. The Minister, when he discharged the condition, said:

"It seemed evident that the buildings mainly in question must be of substantial construction having a potential life exceeding 25 years, and that it would not be an economic proposition to erect such buildings for the limited period specified in the condition."

A very similar outlook informs another case also quoted in the latest issue of the Bulletin. In that instance permission was sought to erect a three-storey building in the centre of a town. The decision letter pointed out that:—

"Where the character of the development was likely to be acceptable for 20 years or more, buildings of a substantial nature and in permanent materials were ordinarily to be expected. The uncertainty about long-term prospects of development at the present time made it very difficult to justify limited period permission for such buildings, and in this case the permanent character

of the building, and the necessarily tentative nature of the Council's alternative proposals for the area made such a limitation inappropriate."

(Reference will be made later to the effect of development proposals.) It should not be thought that this consideration of building costs is limited to large buildings involving vast expenditure. This is clear from a recent Scottish decision in which the local authority stated that they would grant a limited period permission to convert two cottages into one house. The Secretary of State said:—

"It did not appear possible to carry out the proposed development in a manner which would be reasonably economical if only a temporary permission were granted."

Public Development Proposals

The reason for imposing a time limit is, very often, that the local planning authority, or some other public body, intends to redevelop the area in question. Presumably it considers that the development proposed either will conflict with its own schemes or will prevent it having a free hand when the time comes to make its proposals effective. How far this argument will justify a time limit on a permission depends in the main upon what length of time may be expected to pass before the redevelopment proposals are likely to come into being. If the proposals to redevelop an area are likely to be realized in the reasonably near future then this may well justify placing a time limit on development. Thus in one case, where the Secretary of State was satisfied that this was the case, the letter stated:—

"The Secretary of State was of the opinion that the line of the proposed ring road should be safeguarded, and that the development of the site as proposed by the appellants would prejudice the redevelopment of the area in accordance with the proposals of the local planning authority. He agreed, therefore, that the granting of permission for a limited period of ten years was not unreasonable."

On the other hand, in another case, he stated that he considered "the local planning authority had under-estimated the time factor for their proposals and accordingly he took the opposite view of a temporary permission." The whole matter is summarized in a case which appeared in the eighth Bulletin. In that case the local planning authority imposed a 15-year limit on the grant of permission to extend a factory in a central area. The Minister stated that:—

"While . . . in his opinion the Council's policy of refusing permanent permission for development which is unlikely to accord with the Development Plan was justified, he considered that in cases where they decided to grant a temporary permission the period of permission

should be related as closely as possible both to the probable date of redevelopment and to the needs of industry. In the present case it was clear that general redevelopment of the central area was unlikely to take place for a long time, and this being so it was unreasonable to subject industry to conditions which would undermine its economy by making it impossible to carry out reasonable extensions and improvements unless this was clearly necessary in the public interest."

This decision lays much stress on industrial considerations because they were the questions there under review. It seems likely, however, that the argument applies to most forms of development.

Conclusion

Generally speaking, the power to limit the life of a planning permission is legitimately used when the development for which permission is granted would be likely to clash with reasonably firm proposals to redevelop the area concerned. Moreover, such redevelopment proposals must be likely to be realized in the foreseeable future. Judging by the Minister's decisions, the foreseeable future includes periods up to about 20 years, except in the case of minerals where special considerations apply. Even then attention must be paid to the economics of the development involved, the life of the building in view of its type of construction being the main, but not the only, factor in any such assessment. To paraphrase the Minister's words, the period of permission must be *closely related* to the probable date of redevelopment and to the economic considerations involved.

Time limits may also be legitimately imposed where some form of development is genuinely undesirable in the place chosen, but could be tolerated either while further development is awaited or to obviate hardship while another site is found. An example of the former occurred last year at Felixstowe. Permission was refused for the retention of a caravan site and the Minister said:—

"He agrees with the Council that the retention of the caravan site on a permanent basis would not be in keeping with the proposed residential development, but he does not consider it necessary to terminate the use at present, as it has little detrimental effect while the adjoining land to the north and west remains undeveloped."

The Minister accordingly gave temporary permission subject to certain other conditions.

An example of the second kind of time limit noted above occurred at Chelsfield. There it was considered that a builders' yard in the garden of a private house was undesirable and could not be allowed to continue.

"The Minister adds that he has come to the conclusion that little

harm would result and hardship to the appellants avoided if the use of the site as a builders' yard was allowed to continue and the existing buildings remain, for a further period of two years. In his opinion, this should allow ample time for the appellants to make arrangements for transferring their business to a more suitable site."

Such, then, are the normal uses of a time limit. It should not normally be used either to limit or exclude the payment of compensation. In particular, it should only very rarely be used to require development to be commenced by a fixed time and should *never* be used to provide for completion of the work by a given date. Such time limits also should not, in general, be imposed to safeguard a remote redevelopment proposal or to reserve the site for indefinite projects. Such time limits should not be so framed as to render the building concerned an uneconomic proposition, in all the circumstances. Either the position is such that permission can reasonably be refused, or the permission granted should allow the work to be carried out on an economic footing.

S.P.A.B. Course for Architects

In response to repeated requests, the Society for the Protection of Ancient Buildings is again providing facilities for architects interested in and responsible for old buildings to obtain knowledge of its principles and methods of repair, and is arranging its annual course, consisting of lectures, discussions and visits, to cover the many important aspects of repair work.

It is apparent, with so much overdue repair waiting to be done to churches and old houses, that there will be no lack of work of this character for many years. It is therefore essential that more architects should possess an acquaintance not only with the constructional methods of the past, but with the principles underlying the sympathetic and conservative treatment of old buildings.

It is also hoped that it will be found possible for Local Authorities and others to give facilities to the architect members of their staff so that they can take advantage of this scheme. It is proposed to hold the course from July 19-24, 1954.

The Society invites those who are interested to apply for further details to the Secretary, the Society for the Protection of Ancient Buildings, 55, Great Ormond Street, W.C.1.

ARCHITECTURAL EDUCATION

When would it be most beneficial for a student to undertake his practical training

LIFE is full of problems, problems which most of us have had to solve by experience. I have no doubt that many of us, if we had known what we know now, would have shaped our early life on slightly different lines. I am thinking particularly of our architectural education. Would you have studied as you did, on the lines you did, if you had your time to serve over again?

This question was put to me in a slightly different form by a student of a School of Architecture who had just completed his School training but was not qualified until he had served his year's period in an office and passed his Professional Practice Examination. The reason for his doubt was that he had that day come back from an interview for a post with a local authority and had been unsuccessful. The point that worried him was that the successful candidate had not been for a full-time course to a School of Architecture and only had his Intermediate Examination, but had previous experience with a local authority.

Unwittingly this unsuccessful student had raised a very thorny subject, which worries every chief official of a local authority; a problem which, I feel sure, must also be of interest to those who have any regard for the younger members of the architectural profession. I often wonder if this difficulty which is facing employers is appreciated by Schools of Architecture and, if so, are they ignoring the fact?

The first question, therefore, I wish to put to all who are in any way connected with the future of architecture is, are we getting the right type of student into the profession? Put another way, the boys who are interested in building do not appear to become architects but turn to civil engineering, and the boys who are interested in drawing and art either turn to architecture or commercial design—presumably because pure art is too unremunerative and art teaching too frustrating. We have all heard the fond parent who remarks that his son was "good at art" at school and so, he feels, would make a good architect; architecture being looked upon as a profession in which the architect sits all day drawing pretty pictures of buildings. Is this picture unfortunately fostered by many of the Schools of Architecture?

Why this idea of architecture should

prevail is difficult to analyse. Presumably the reason is that the public have little idea of the true functions of an architect and their connections with him are, in most cases, limited to seeing prettily coloured sketch plans of a proposed building or the pictures in the R.A. Somehow, for the good of the profession, this vagueness and much distorted picture of the work of the architect must be remedied if we are, in future years, to get the most suitable entrants into the profession.

Once a boy has decided to make architecture his career he is encouraged on every side to go to a School of Architecture. Certain aspects, favourable aspects, for studying for his examinations are held out as tempting bait. I am not quarrelling with anyone who suggests that a young man wishing to study architecture should attend a School of Architecture. If my son was proposing to become an architect I would most certainly send him for a period to a School. When and for how long appear to me to be the vital questions. If he goes immediately he leaves school and stays for the five years, he must be willing to face the disappointment the young student experienced who, I mentioned previously, was unsuccessful at the interview. He must also be willing to accept a lower salary than he personally feels he is actually worth, because of his lack of experience in the practical side of an architect's office. This is a factor which students straight from the Schools, I feel, fail to realize or, what is perhaps more natural, do not wish to appreciate.

I feel we should not be too hard upon the students but rather upon the present system of education. If it is agreed that the Schools turn out a student who is too theoretical, or rather a better designer than constructor, and the student who has had to study whilst earning his living in an office is better upon the practical or constructional side, the sooner we evolve a system which can marry these two sides of a student's studies for obtaining a thorough education in the fundamentals of architecture the better.

A solution is by no means easy and if it curtails the activities of the Schools of Architecture will naturally be contended by them.

The present system makes it imperative—rightly so—that before a school-trained architect may obtain his Final, he must have had one year's practical experience in an office. It is agreed, therefore, that practical experience is a necessity. The bone of contention is, however, when should this practical training take place to be of most benefit to both the student and the profession?

Personally, I would advocate that students should, for the first two or

three years, learn the practical side of architecture in an office. It might be contended that for the first year they will merely make tea, run for prints and be general office boys. This need not be so if a scheme was evolved by the Board of Architectural Education, architects and the Schools. It would necessitate the Board devising a certain curriculum that the student would have to work to whilst learning the practical side in the office. It would be obligatory upon the student to study for and sit, at the end of his first and second years, examinations based on office practice and procedure, construction and matters appertaining to building and site works.

This scheme would take the place of the articulated pupil system, which had many failings as well as its good points.

If the office was a well run office the student would learn the meaning of the word work, and the fact that time means money. He would come in contact with real people; the temperamental client, the boss who had to prepare and execute designs for these people, the blustering foreman and the could-not-care-less tradesman. He would find himself in a world of real materials, a world of forms, restrictions and broken promises. A world of costs, accounts, schedules, agreed rates, percentages and so on. A world in which design is only one of the many functions which an architect has to perform.

This is not a fanciful scheme, not just wishful thinking. Before the war there were students, far-seeing students, who gave a little more thought to their studies than most who went into offices for their initial training and then went to a School of Architecture for their final years. Those with whom I am personally acquainted not only did very well at School but became very successful architects in after life. Some became household names in the profession.

To my mind, they succeeded at the School because they had all the time the practical side in mind, the client, the cost, the materials and the builder. They also knew what it was to have to work against time. Design would then take its proper perspective in the whole curriculum.

Whilst there would be criticism from both the offices and the Schools regarding these suggestions, I feel that with the help and guidance of the wealth of knowledge that the Board of Architectural Education must have gained over the years, a system on these lines could be evolved which would, in the long run, be beneficial to all concerned with the future of the young architects in the profession.

M. E. TAYLOR

Welfare

OVER the last few years I have been fortunate to have seen a number of documents on this subject prepared by large industrial organizations for the guidance of their management and staffs. The latest of these private publications to reach me is a 125 page book under the title "Standards of provision for welfare, health and safety in the electric supply industry," issued by the National Joint Advisory Council of the Electric Supply Industry.

While it is an extremely well presented publication containing much helpful advice, some of the subjects are dealt with far too briefly to serve as guidance, especially to responsible members of management who have little technical and practical architectural background. In its preparation it would seem that there is a very noticeable hand of an experienced architect but that he has assumed that his readers would have more detailed knowledge than is probably the case and in consequence some of the statements are far too brief and do not contain all the essential data needed.

The general arrangement of the information in each group is quite good as for each item for which legislation exists the essential extracts of the requirements are given and followed, often very sketchily, by advice as to how to provide for the meeting of the requirements for the various types and sizes of building, but the general arrangement and the contents in relation to each other seems a little muddled and could have been better organized to provide continuity.

The book opens with a general introduction explaining that Electricity Boards have responsibilities for the welfare, safety and health of their employees under the Electricity Act, 1947. The premises of the Boards fall into four main classes: factory, shop, workplace and office, for which the requirements necessarily vary. The Gower Report of 1949 has been specially drawn on in relation to the provisions which should be made for those in non-industrial employment, for which at present there is little official guidance. The introduction is followed by three layout diagrams indicating desirable relationships between units for welfare and health but very little explanation of the diagrams is given nor is any direct reference made to them in the text, with the result that they are unlikely to serve much useful purpose to many readers.

The next item of information given concerns the parking of cycles, motor cycles and cars; the information is very sketchy and gives only very limited guidance. A direct reference to B.S.1716 for cycle stands would have been a helpful addition. The next three paragraphs dealing with time-records and wages, vestibules and notice-boards provide the minimum of assistance to readers as they contain no guidance

whatever regarding sizes in relation to numbers of users.

The provision for changing, storing and drying of clothes is handled in much greater detail, including dimensions and typical arrangements and guidance for wall and floor finishes. The subject of washing facilities is also dealt with at some length but unfortunately no suggestions are made for desirable sizes of basins, their spacing part, how best to fix them securely to walls and how best to handle the vexed problem of the provision of towels. Incidentally a type of basin is shown which is stated as not being of a stock design, which seems an undesirable principle in so large an industry as surely normal basins to B.S.1188 would meet the need. Sanitary accommodation is also discussed in detail and is illustrated with two unusual types of W.C. pans without flushing rims, which it is claimed are easier to clean; the one type appears to have a very inadequate floor support and the other appears to be a wall supported type which, although aiding floor cleaning, is apt to be costly and expensive to fix. Two very unhygienic types of urinals are illustrated, first a slab type with divisions having the joints between the sections of the ware centrally in each standing space and the other type is a wall-fixed bowl which hygiene specialists always frown on. Non-concussive flushing valves are advocated when they are permitted by the water supply authority. Four lines are given to the subject of rest-rooms without a clue as to the sizes which are desirable.

Some 10 pages are given to catering services in which are discussed layouts and requirements for accommodation to meet various sizes of canteen and also for snack-bars and mess-rooms. Again only very general information is given as to what provisions are really necessary.

The next subject discussed is recreation and layout of sites. Most of the space is devoted to dimensioned layouts of pitches for various games, which could surely be obtained so easily from other sources. It is noted that no indication of the desirable aspects for these pitches is given. Two very cryptic paragraphs cover the subject of layout of sites, totalling six lines, together with three illustrations with a number of captions; thus the information is, on the whole, rather meaningless. One illustration is devoted to showing a fence surrounding a large factory sunk in a wide cutting, which seems extremely costly without achieving any worth while objective. The paragraphs merely devote attention to layout, design of grounds and "buildings and grounds should be complementary and should fit in with their urban surroundings or with the landscape." One wonders if so little is worth saying.

The notes on first-aid and medical services, together with the associated appendices, give both the requirements to be met and some helpful information. There are three typical layouts

of how to provide medical accommodation for premises of varying sizes and types.

On the subject of seating facilities, the requirements are again clearly set out and reference is made to official publications where detailed guidance may be obtained. Two paragraphs giving examples of bad posture and some good types of seating are included but as no explanations are given it is doubtful that they are of much educational value. Notes on the requirements for a supply of drinking water are given but little information on such essential factors as the sizes of appliances and the materials from which they should be made are set out.

Very sketchy notes are given on the subject of overcrowding and noise and vibration but the subjects of heating, ventilating and hot and cold water are given in greater detail. Lighting, of which the electrical industry should be fully conscious, receives considerable attention. Four pages with coloured diagrams are given to the subject of the proper treatment of colour in buildings. The notes, however, contain the following statements: "Stock paints are not generally of sufficient purity to enable them to be successfully mixed to make the desired colours on the job." "Most manufacturers can, however, provide and supply ready-mixed almost any colour required." The first of these statements would surely be discredited by most paint makers, while the second, although true, seems very undesirable as it encourages each person responsible for buildings to order small quantities of paint in special colours instead of using the good stock ranges which are available from many makers. I fully agree that the present B.S. colour ranges are inadequate but any new B.S. ranges should be of such a size that production is kept within reasonable economic bounds. I support the suggestion that there is a need for an agreed nomenclature of colours.

A page of text, an eye-chart and two pages of selected type faces on the subject of lettering give information on the choice and size of lettering, based on the Snellen Chart; it is very useful guidance but it is difficult to understand the reason for including type faces as these are essentially for printing use and are not applicable to sign-writing.

Ten pages are devoted to Safety Requirements and as far as they go the matter is well presented in a form which sets out clearly the main requirements. However, I regret greatly the statement that a good average arrangement of a stairway is 9in risers with 10in treads as this is very steep and consequently very tiring to the users. A few references in this section to the valuable British Standards and Codes of Practice for equipment involving risks, such as cranes, chains and lifting tackle, together with those for personal safety, such as goggles, would have aided the reader greatly

(Continued on page 675)



THE MODERN WINDOW

*fitted with friction hinges
has no stay to clutter the cill
never slams : will not corrode*

NOW HAS BRONZE FITTINGS

HOPE'S

HENRY HOPE & SONS LTD., BIRMINGHAM & LONDON



THE CLOCK ON THE WALL

No longer an afterthought, the clock on the wall is often planned with the wall itself, as integral a part of a new building as, say, its lighting system.

As one clock on one wall, or as a hundred 'Slave' clocks on a hundred walls, synchronized to a 'Master', Gibson clocks are specified at the blueprint stage, for hospitals, schools, factories, or wherever accurate time-recording is a necessity.

Because they are worked off batteries charged from the mains, these clocks are aloof from power cuts. The available designs are varied and good—special designs can be carried out.



Gibson
CLOCKS
are made by—

BAUME & CO. LTD

1, HATTON GARDEN, LONDON, E.C.1. CHANCERY 4331

when there's a contract in the air...

SPECIFY
STIC B

TO PROTECT IT — TO PRESERVE IT

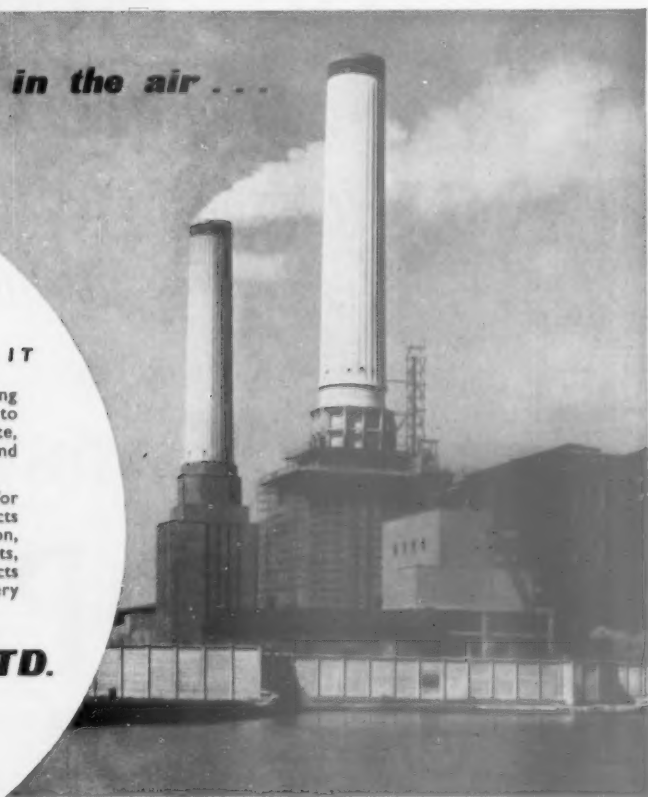
Stic B Stone covering is a decorative and waterproofing treatment that can be applied by brush or spray to practically all surfaces, including new and old concrete, cement rendering, brickwork, plaster, wall boards and asbestos.

Our picture shows Brunswick Wharf Power Station, for which Stic B products were specified. Other contracts include London Airport, Brighton 'B' Power Station, Uskmouth Generating Station, and Priory Court Flats, East Ham. Every assistance will be given to Architects and Builders regarding the use of our product on every kind of surface from New Concrete to Asbestos.

STIC B PAINT SALES LTD.

47, WHITEHALL, LONDON, S.W.1

TELEPHONE: WHITEHALL 9958



since I am sure that many of those receiving this document will not know from where to obtain the detailed information on which to make purchases or to carry out installations.

The section on the subject of costs is so general that it becomes virtually valueless excepting that it contains a paragraph which reads "capital costs should not be reduced to an extent which is likely to lead to inordinate increases in maintenance cost." In the same paragraph appears a statement "A reasonable yearly average reserve for repairs and renewals of welfare buildings would not exceed 2 per cent of capital cost." In this section a reference, unconnected with the remainder, is made to the B.S. report on modular planning and the advantages of this method of approach to planning. There is also a reference to the publications of B.S.I. and H.M.S.O. as guides to good practice and economy, in which it is said that a list is included in the bibliography. Regrettably, however, on referring to the bibliography the list becomes the addresses of these two bodies, so that the helpful guidance one had hoped for is not included. Incidentally, there are some very strange inclusions in the bibliography which are likely to provide much reading but very little direct guidance to those responsible for the day-to-day work on making specific decisions for the provisions of facilities for welfare, health and safety: among these references are the M.O.W. Economy Memoranda, Papers of the Building Research Congress, 1951, Transactions of the Modular Society and Games and Sports in the Army.

There is a very useful section on the subject of maintenance although there appears to be certain provisions included which would appear more properly to fall within the scope of basic design of buildings, rather than their maintenance when completed. There are some very useful appendices giving lists of related Acts, Orders, Regulations, the sizes of kitchen fixtures for canteens, and the outline of the hygiene factors involved in the care of clothing issued for protective and other purposes.

It seems most unfortunate that these many documents on provisions for welfare, safety and health assembled by the large industrial organizations for their own use cannot, in some way, be made more generally available for the assistance of the smaller organizations and individual firms, especially those that have small factories, shops and offices. These smaller units cannot be expected to have available the means of collecting into a useful form the experience on which to draw. I am sure it would be extremely helpful if these large organizations, such as the Miners' Welfare, Imperial Chemical Industries, The Electricity Supply Industry, the multiple shops and the Industrial Welfare Society could be brought together under the auspices of the new B.S.I. Codes of Practice Council to prepare a Code or series of Codes of Practice

covering the provisions needed under various conditions for welfare, health and safety in places of employment, regardless of type and size. I am sure that many industrialists would be grateful for guidance based on the accumulation of experience as would the architects who have to provide the buildings to house these provisions. No doubt most industrialists are well aware of the implications of the official regulations but they are less well acquainted with the means by which experience has shown that the requirements can best be met.

DUTCH UNCLE

TIMBER NOTES

WHILE there is much talk in the timber trade and among the softwood consumers of reduced prices in the near future, it cannot be claimed there is any difference to be seen at the moment. Consumer opposition is strong and prices in the building trade for softwood are certainly keen, but this state of affairs has not prevented the importers from continuing to buy at high prices.

Unless sales are made at a loss, there must follow higher prices for softwood in most grades in the immediate future, as soon as the new shipments reach the yards. Importers have not been buying so heavily of late (purchases for March were 100,000 standards), but this should not be taken to indicate any future shortage, for the stocks are good and buying for this year has already placed under contract some 1,100,000 standards. Even with the heavy building programme, consumption this first year of freedom is not expected to go beyond 1,400,000 standards, and there are many in the timber trade who doubt whether such a figure will be reached. The early consumption statistics bear out their estimates of a lower use of softwood.

Some weakness is expected to develop in the South Finnish and South Swedish whitewood, and in redwood fifths and lower. As for the unsorted specifications, from which the joinery timbers are normally taken, these are as strong as ever at £81 a standard f.o.b. Fifths are cheaper already, being at least £10 a standard below the unsorted price, and some joinery manufacturers are trying to find their requirements from among the better brands of redwood fifths as a means of keeping down costs to the builder.

Increases in the prices for Douglas fir and hemlock have affected the building trade, as these constructional woods are widely used. Quite alarming is the small differential between the two timbers because of the heavier buying of hemlock, though most

builders will agree Douglas fir is a superior timber for building. Hemlock shipped to this country too often contains far too much moisture.

In the hardwood trade prices are a little stronger, but still most reasonable, for there has been a general slump in many species, particularly those which were being used as softwood substitutes. No news has come from the Government about freedom for dollar hardwood imports, and the chances are thought to be small for success. Native hardwoods are on the market at low prices.

Supplies of building boards are better than had been forecast. The trade said there would be a distinct shortage by now, but it has not developed, though builders have sometimes to search for full requirements. Some merchants are selling at weak prices still, in spite of the fact that there is no surplus of stock. Imports have been maintained at a good level under quota, but there is little prospect of freedom for these imports in the second half of the year.

Plywood prices are rising quite sharply, due to the small supplies available from Finland, and the refusal of the Russians to sell before the second half of the year. There is little chance of any fall in price for some time.

B.I.D. Conference

Addressing the annual conference of the Building Industry Distributors at Southport on May 25, the president, Mr. Harold F. H. Rainger, of London, said:—

"There are still people who regard builders' merchants as unnecessary middlemen. My answer is that if there had been no builders' merchants it would have been impossible to build 319,000 houses last year.

"About 80,000 more houses were completed last year than in 1952. It has been estimated that in the average house there are 16,000 to 20,000 bricks, eight or nine tons of cement, and, of course, there are very many other materials and fittings. Multiply the materials needed for one house by scores of thousands, and you have some idea of the distributive problem presented by a bigger housing programme.

"Yet the builders' merchants have taken the building programme in their stride. At the same time, they have helped to keep down the cost of houses. Does the house-buying public appreciate the advantages of our many millions of pounds' worth of stock, strategically placed all over the country, which enables the builder to use his capital for other purposes and helps the manufacturer to plan for steady and economical production?"

MOSAICS



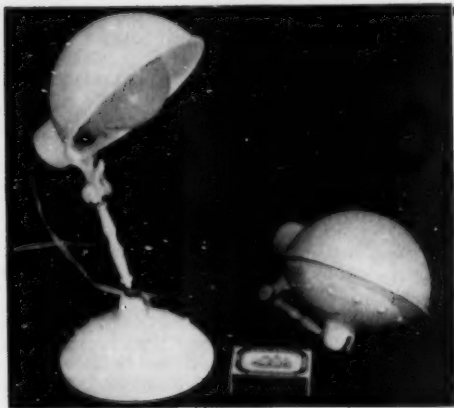
**FITTINGS
FURNITURE**
C8/6

The Slinga chair is manufactured in this country by Slinga Furniture, 18-20 Canonbury Park North, London, N.1. Constructed in $\frac{1}{2}$ in dia. tubular steel frame which is cellulosed in matt or glossy colours. It has removable canvas covers in red, orange, maroon, green and blue. Size 2ft 10in high, 2ft 5in wide, and weighs 7 $\frac{1}{2}$ lb. The frames are stackable. Price retail, £6 14s 9d.



**PLANT
MISCELLANEOUS**
E14/8

The "Electric Eel" tractor, Model 55428 has a maximum draw bar pull of 1,200 lb, and is the smallest in the Coles range, made by Steels Engineering Products Ltd., of Sunderland. The motors are series wound, heavy duty traction type and the battery a 40-volt lead-acid type. A controller allows three forward speeds and reverse, and its turning radius is only 70 inches.



**SERVICES
LIGHT FITTINGS**
B1/83

A new adjustable model table lamp known as the "Versatile" is of all metal construction. Weighing only 11b 1 $\frac{1}{2}$ oz, its size when folded is 6in x 4in x 4in. Finished in stove enamel in eight shades, it is designed for 25, 40 or 60 watt bulbs. Made by L. & I. Clarke, 10 Colebrook Road, Southwick, Sussex. The matchbox indicates the scale.



**SERVICES
PLUMBING**
B4/21



A new Polythene trap by Associated Builders Merchants Ltd., of Peters Hill, Upper Thames Street, London, E.C.4, gives a full 1 $\frac{1}{2}$ in seal, is supplied according to British Standards. Areas A, B and C equal 1.227 sq in, which is equivalent to a full 1 $\frac{1}{2}$ in diameter. E and F indicate the Polythene enclosed model reinforcement, whilst D shows the outlet tapered to receive the Cone Connector.

THE FOURTH MECHANICAL HANDLING EXHIBITION

Applications have been received from 45 countries for tickets for the fourth Mechanical Handling Exhibition and Convention to be held at Olympia, London, from June 9 to 19. On the last occasion two years ago visitors came from 36 countries.

Among highlights of the Exhibition will be giant mobile cranes with jibs nearly reaching the 100-foot-high roof, new hydraulic lorry loaders operated by drivers without help, an electric tractor with a turning radius of 70 inches, a pneumatic grain-handling plant, an automatic packing machine which straps and secures irregularly shaped packages with steel bands, and fork lift trucks capable of new feats in lifting and stacking.

The organizers of the Exhibition, which will be opened on June 9 by Mr. A. R. W. Low, M.P., Parliamentary Secretary to the Ministry of Supply, estimate that the value of output of British mechanical handling equipment last year was in the region of £60,000,000, of which more than 25 per cent went for export.

The Services are stated to be among keen users to-day and the War Office recently demonstrated the use of fork-lift trucks and pallets by unloading petrol cans at the rate of 20 tons per hour compared with four tons manually.

The bulk of the exhibits of 200 manufacturers will be seen in operation, with working models of large installations like ropeways, grain elevators and floating pneumatic coal-discharging plant. There will be equipment for the smallest workshops as well as for the big factories.

Convention Programme Change

A change is announced in the programme for the Convention, which comprises 11 papers by experts on various aspects of materials handling and an open forum when questions will be answered.

Mr. R. G. Winton, A.M.I.Mech.E., A.M.I. Prod.E., will give paper No. 10, "Economics of Modern Materials Handling with Industrial Trucks," at 2.30 p.m. on Wednesday, June 16, in place of Mr. R. B. Lister, who is ill. The substance of the paper, which is sponsored by the Industrial Truck Manufacturers' Association, will be unchanged and General Sir Ouvry L. Roberts, Quartermaster-General to the Forces, remains the chairman.

Applications for some of the Convention sessions already exceed 400 and for the whole series total nearly 4,000 to date.

Admission to the Exhibition, which is organized by *Mechanical Handling* (Associated Iliffe Press, Dorset House, Stamford Street, S.E.1) is free to the trade (who should write to *Mechanical Handling* for season tickets admitting them to Convention sessions also) and to trade union members on production of their cards.

Hours are from 10 a.m. to 6 p.m., except on Monday, June 14, and Thursday, June 17, when for the convenience of works personnel the Exhibition will remain open until 9 p.m. Public admission is 2s 6d.

CORRECTION

On page 522 of our issue of May 6, illustration No. 8 is a panel planer or thicknesser by Dominion Machinery Co., Ltd., of Hipperholme, Halifax, and it is made in one size only, 24in x 9in.

Notes below give basic data of contracts open under locality and authority which are in bold type. References indicate: (a) type of work, (b) address for application. Where no town is stated in the

CONTRACT • NEWS •

address it is the same as the locality given in the heading, (c) deposit, (d) last date for application, (e) last date and time for submission of tenders. Full details of contracts marked ★ are given in the advertisement section.

YOU CAN
DEPEND ON

Cementone

COLOURS
HARDENERS
WATERPROOFERS
DECORATIVE FINISHES

JOSEPH FREEMAN, SONS & CO., LTD.
LONDON, S.W.18. VANdyke 2432

KINNEAR SHUTTERS

METAL LETTERS

FOR SHOPFRONTS AND SIGNS
in Stainless or Enamelled
STEEL and CAST BRONZE

Write for illustrated list
CHASE PRODUCTS
(ENGINEERING) LTD.

27 PACKINGTON ROAD, ACTON, W.3

FROM 5/2 cu. ft.
**CONCRETE
MIXERS**

TO 14/10 cu. ft.

Immediate Delivery

THOS. W. WARD LTD
ALBION WORKS, SHEFFIELD

TELEPHONE: 2631 (22 lines)
LONDON OFFICE: BREITENBURG HOUSE, 10, ALBERT PLACE, STRAND, W.C.2

OPEN

BUILDING

ALTON R.C. (a) Public convenience, Grayshott. (b) Council's Engineer, Council Offices, Barton End. (c) 3gns. (e) July 7.

BENTLEY-WITH-ARKSEY U.C. (a) 19 bungalows, etc. (b) Council's Engineer, Council Offices, Cooke Street, Bentley, Nr. Doncaster. (c) 2gns. (e) June 14.

BOURNEMOUTH B.C. (a) Erection of a taximan's shelter and other works, adjoining the Information Bureau, Westover Road. (b) Borough Architect, Town Hall. (c) 1gn. (e) June 25.

BUSHEY U.C. (a) 24 flats and 30 houses, Ashfield Avenue, Bushey. (b) Engineer and Surveyor, Council Offices, Rudolph Road. (c) 3gns. (e) June 28.

DONCASTER B.C. (a) 6 shops and 6 flats, Weston Road. (b) Borough Architect, 15, South Parade. (c) 2gns. (e) June 23.

DURHAM C.C. (a) Child welfare centre and school clinic, West View Area, Hartlepool. (b) County Architect, Court Lane. (d) June 11.

GLOUCESTER C.C. (a) New secondary modern school, Bishop Cleeve. (b) County Architect, Shire Hall. (c) 2gns. (d) June 7.

GOSPORT B.C. (a) Reconstruction of Thorngate Hall. (b) Borough Engineer, Town Hall. (c) 2gns.

HUNTINGDON R.C. (a) 4 bungalows, Alconbury Weston. (b) K. A. Milner, Messrs. Lea, Milner and Wardley, 4, Market Hill. (c) 2gns. (e) June 16.

LONDON—GREENWICH B.C. (a) 2 blocks (18 flats) at 26, Kidbrooke Grove; 2 blocks (16 flats) on sites of 158-164 (even) Humber Road and 1-5 (odd) Ruthin Road. (b) Borough Engineer, Town Hall, Greenwich High Road, S.E.10. (c) 2gns. (e) July 6.

LONDON—HAMPSTEAD B.C. (a) Aged persons' dwellings at 42-44, Galsworthy Road, N.W.2, comprising 10 flats in a 3-storey block. (b) Town Clerk, Town Hall, Haverstock Hill, N.W.3. (d) June 9.

LONDON—HENDON B.C. (a) 1 block of 6 dwellings at 36, Highfield Road, Golders Green, N.W.11. (b) Borough Engineer, Town Hall, N.W.4. (c) 2gns. (d) June 8.

LONDON—HENDON B.C. (a) Pair of houses on a site adjoining 87, Layfield Crescent, N.W.4, and 2 bungalows on land adjoining 66, Layfield Road, N.W.4. (b) Borough Engineer, Town Hall, N.W.4. (c) 2gns. (d) June 8.

REDALON

Liquid N

CEMENT RETARDER

For the Perfect Key

THE ADAMITE
COMPANY LTD



MANFIELD HOUSE, STRAND, W.C.2

"CRETE-O-LUX"

for:  also:

PAVEMENTS
ROADWAYS
FLOORS, Etc.

CANOPIES
SHELTERS
ROOFS, Etc.

LIGHTS

Supplied Pre-cast for most situations
and adaptable to all present-day needs.

HAYWARDS LTD
UNION STREET, LONDON, S.E.1

FIBRE INSULATION BOARD

"QUITFIRE" impregnated in
FIREPROOFED (Class 1 to B.S.470/
32 Amdt No. 2) and **FUNGUS-**
proofed or **TERMITE**-proofed (or
all three combined).

Used on Government contracts,
Industrial Buildings, Schools etc.

Enquire of your supplier or
processors:

S. O. Rudkin & Co. Ltd.

Plantation House, Mincing
Lane, LONDON, E.C.3
Tel: MANsion House 4406 (3 lines)

MAIDENHEAD B.C. (a) 6 shops with 3 maisonettes over, Pinkneys Estate. (b) Borough Engineer, 14, Crauford Rise. (c) 2gns. (e) July 5.

MANCHESTER REGIONAL HOSPITAL BOARD. (a) Erection of an acute medical unit, at "D" block, Barony Hospital, Nantwich. (b) Architect to the Board, Cheetwood Road, Manchester, 8. (c) 2gns. (d) June 8. (e) June 22.

MYNYDDISLWYN U.C. (a) 6 aged persons' bungalows, Black Prince Site, Ynysddu. (b) Engineer and Surveyor, Council Offices, Pontlanfraith, Mon. (c) 2gns. (e) June 14.

NORTHAMPTONSHIRE C.C. (a) (1) 2 classrooms and (2) electrical installation at Rockingham Road Modern School, Kettering. (b) County Architect, County Hall, Northampton. (d) June 8.

N. IRELAND—BANGOR B.C. (a) 3 lock-up shops with stores, together with site works, Ballymacconnell Road, Bangor. (b) G. R. Twist, 141, Scottish Provident Buildings, Belfast. (c) 2gns. (e) June 15.

NORTHERN IRELAND HOUSING TRUST. (a) Alterations at Cregagh Social Centre, Belfast. (b) Offices of the Trust, 12, Hope Street, Belfast. (c) £2. (e) June 16.

N. IRELAND—MOIRA R.C. (a) 20 houses and contingent works, Mill Hill, Waringstown. (b) W. R. Wheelan, 38, Market Street, Lurgan. (c) 5gns. (e) June 16.

PORTSMOUTH C.C. (a) Erection of the following at Leigh Park:—(1) 92 houses, Bondfields Lawn; (2) 78 houses, Bondfields Lawn; (3) 6 shops and maisonettes, Barncroft. (b) City Architect, Municipal Offices, 1, Western Parade. (c) £1 each contract. (d) June 9.

READING B.C. (a) 20 garages in 2 blocks of 10, Park Farm Estate. (b) Borough Architect, Town Hall. (e) June 12.

ROMFORD GROUP HOSPITAL MANAGEMENT COMMITTEE. (a) Reinstatement of a ward block at St. George's Hospital, Hornchurch. (b) Messrs. Evans, Thompson and Whitehead, 5, High Street, Romford. (c) £2. (d) June 12. (e) July 3.

ST. AUSTELL R.C. (a) Erection of 2- and 3-bedroom type houses in blocks of 2, with 1 block of 6 houses, Edgecumbe Terrace, Roche. (b) Engineer and Surveyor, "Trevarna," 12, Carlyon Road. (c) 2gns. (e) June 23.

ST. JOHN'S AND MANOR HOUSE HOSPITAL MANAGEMENT COMMITTEE. (a) Redecoration and adaptation to main kitchen at St. John's Hospital, Stone, nr. Aylesbury. (b) Secretary to the Committee, St. John's Hospital, Stone, near Aylesbury. (d) June 14.

SCOTLAND—ARGYLL C.C. (a) 38 houses, Strachur; 4 at Furnace; 10 at Kames; 4 at Innellan. (b) County Architect, County Offices, Dunoon. (d) June 12.

SCOTTISH SPECIAL HOUSING ASSOCIATION, LTD. (a) 50 space-saving cottages, Kirkhall Site, Ardrossan. (b) Scottish Special Housing Association, Ltd., 15-21, Palmerston Place, Edinburgh 12.

TRACING CLOTH & PAPER

for Home & Export Markets

**BEST QUALITY
LOWEST RATES**

Send us your enquiries

COUSINS & CO (M/C) LTD

82 PRINCESS ST., MANCHESTER, 1.
Phone: CEN. 4674 CABLES: THEOLOGY

THE TYROL MACHINE

HAND OPERATED
FOR APPLYING TYROLEAN Pat. No. 510492



**OPEN TEXTURE
(ROUGH CAST)
FACINGS**

- LIGHT WEIGHT
- RAPID COVERAGE
- SIMPLE TO USE
- EASY TO CLEAN

PRICE £9.18.0 each delivered free any part of U.K.
Enquiries to: **TYROL SALES LTD.**, 2 St. Benet Chambers, la Fenchurch Street, London, E.C.3. ENGLAND
Tel: MANsion House 2735.



*The Outstanding
All Wood
Fibre
Hardboard*

LIGHT STEELWORK (1925) LTD.

**HYTHE ROAD,
WILLESDEN, N.W.10**
Telephone: LADBROKE 3674

**STEEL STAIRCASES
BALUSTRADES AND
HANDRAILS**

A. & P. STEVEN LTD

**"APS"
LIFTS**

181 ST. JAMES ROAD, GLASGOW, C.4

Tel: Bell 0356

LONDON: 10 Nicholson St., S.E.1. Tel. Waterloo 4465
MANCHESTER: 1: 12 Charles St. Tel. Ardwick 1391
EDINBURGH: 2: 2 North West Circus Place.

Tel. Edin 27990

BIRMINGHAM: 18: 63 Hockley Hill. Tel. Northern 1266

SELBY U.C. (a) 24 houses, Stainer Wood Estate, Selby. (b) Messrs. Blenkinsopp and Thompson, Clifton Chambers, Park Street. (c) 2gns. (e) June 22.

SHEFFIELD C.C. (a) Dwellings on Corporation estates as follows:—Greenhill-Bradway Estate—104 dwellings; 9 blocks of maisonettes and flats; Richmond Road (Infilling Site) 28 dwellings—aged persons' flats; Harthill Road (Infilling Site) 14 dwellings—terrace houses; Rolleston Road (Infilling Site) 2 dwellings—semi-detached houses. (b) City Architect, Town Hall, 1. (c) £2 each contract. (e) June 11.

SHIPSTON-ON-STOUR R.C. (a) 6 houses, Cherington. (b) Messrs. E. H. Earp and Badger, Scholars Lane, Stratford-on-Avon. (c) 2gns. (e) June 15.

SHIPSTON-ON-STOUR R.C. (a) 5 garages at Tysoe. (b) Messrs. E. H. Earp and Badger, Scholars Lane, Stratford-on-Avon. (c) 2gns. (e) June 15.

SOUTHAMPTON B.C. (a) 26 houses, Weston Farm. (b) Borough Engineer, Civic Centre. (c) £1. (d) June 7.

SOUTHPORT B.C. (a) 46 houses and 8 2-storey flats, Radnor Drive Housing Estate. (b) Borough Architect, 93-105, Lord Street. (c) 2gns. (e) June 18.

SWANSEA B.C. (a) New primary school, Fforest Hall, Swansea. (b) Borough Architect, Guildhall. (d) June 9.

VENTNOR U.C. (a) Further 4 houses, West Street. (b) Engineer and Surveyor, Salisbury Gardens. (c) 2gns. (e) June 28.


WEST RIDING C.C. (a) Revision of sanitary accommodation at Snaith County Primary School. (b) Divisional Education Officer, Education Offices, Goole. (e) June 25.

WEST RIDING C.C. (a) Erection of a satellite clinic, Highfield Road, Hemsworth (all trades). (b) County Architect, "Bishopgarth," Westfield Road, Wakefield. (c) 2gns. (e) June 28.

WEST RIDING C.C. (a) Provision of additional storage accommodation at Wombwell Kings Road School. (b) Divisional Architect, "Bishopgarth," Westfield Road, Wakefield. (e) June 14.

WEST RIDING C.C. (a) Following police premises: (1) The Balk, Walton—(a) access road, (b) 4 pairs houses, (c) 1 senior officer's house with garage; (2) Northfield Lane, Horbury—5 senior officers' houses each with garage; (3) Manorfields Estate, Horbury—1 pair houses; (4) Doncaster Road, Foulby—1 house with office; (5) Hillam Housing Estate, Monk Fryston—1 house with office; (6) Station Road, Royston—1 pair houses; (7) Summer Lane, Wombwell—(a) 3 pairs houses, (b) 1 senior officer's house with garage; (8) Morley Place, Cinisbrough—1 pair houses; (9) Beadon Avenue, Waterloo, Huddersfield—1 house with garage; (10) New Road, Middles-town—1 house with office; (11) Netherfield Housing Estate, Holmfirth—2 pairs houses; (12) Oakenshaw, Bradford Road, Cleckheaton—1 house; (13) Wand Lane, Eggborough—1 house with office; (14) Barfield Drive, Yeadon—1 house with office and garage; (15) Colne Road, Glusburn—1 house with office; (16) Gloucester Road, Silsden—2 pairs houses; (17) Upper Gate Road, Stannington—1 pair houses. (b) County Architect, "Bishopgarth," Westfield Road, Wakefield. (c) 2gns each contract. (e) June 11.

ENGERT & ROLFE LTD INODOROUS FELTS FROM STOCK

LONDON E 14  EAST 1441

ASPHALT WORK TO ALL B.S.S.

COVERITE (ASPHALTERS) LTD

PALACE GATES 57th, R.22, Broom Park, 1954

VULCANITE Roofing- FOR EVERY TYPE OF ROOF

LIGHTNING CONDUCTORS

J. W. GRAY & SON LTD.
TUDOR HOUSE, PRINCETON STREET,
BEDFORD ROW, LONDON, W.C.1.
Telephone: Chancery 8701/2

CHURCH SPIRE RESTORERS

Save Bricks by using
TRUE FLUE
STACK CONSTRUCTION
TRUE FLUE LTD
CONVECTOR HOUSE, ACACIA ROAD
ST. JOHNS WOOD, LONDON, N.W.8



WILMSLOW U.C. (a) Construction of roads and sewers, erection of 106 houses, Lacey Green. (b) Engineer and Surveyor, Council Offices, Green Hall. (c) 3gns. (d) June 9.

WILTSHIRE C.C. (a) Secondary modern school, Highworth, near Swindon. (b) County Architect, County Hall, Trowbridge. (d) June 10.

WORCESTER C.C. (a) 8 maisonettes, 8 flats, 6 shops, 6 maisonettes, Dines Green Estate. (b) City Engineer, 22, Bridge Street. (c) 2gns. (e) June 24.

PLACED

Notes on contracts placed state locality and authority in bold type with (1) type of work, (2) site, (3) name of contractor and address, (4) amount of tender or estimate. † denotes that work may not start pending final acceptance, or obtaining of licence, or modification of tenders, etc.

BIRMINGHAM C.C. (1) 268 dwellings in 4-storey and 6-storey blocks of flats and maisonettes. (2) Staplehall Farm Estate. (3) Wates, Ltd., London Road, Norbury. (4) £516,569.

TAMWORTH R.D.C. (1) 150 houses. (2) Hockley Housing Site. (3) Wates, Ltd., London Road, Norbury. (4) £183,119.

CHELTEMHAM R.D.C. (1) 64 houses. (2) Bishop Cleave Housing Site. (3) Wates, Ltd., London Road, Norbury. (4) £83,023.

CAMBERWELL B.C. (1) 12 flats and 55 garages, an extension of work already being carried out. (2) Denmark Hill Site. (3) Wates, Ltd., London Road, Norbury. (4) £36,629.

MINISTRY OF WORKS. (1) Erection of motor room, etc. (2) Queen Anne's Mansions, London, S.W.1. (3) Whyatt (Builders), Ltd., Bentley House, 225, Streatham High Road, London, S.W.16.

MINISTRY OF WORKS. (1) Erection of sewage disposal works. (2) R.A.E./R.F.D., Westcott, near Aylesbury. (3) A. Roberts & Co., Ltd., 79, Eccleston Square, London, S.W.1.

MINISTRY OF WORKS. (1) Erection of a telephone repeater station. (2) Woodford, Essex. (3) G. H. Miller & Co., Ltd., Sheridan Works, Thorpe Road, Forest Gate, E.7.

MINISTRY OF WORKS. (1) Alterations and extensions. (2) C.E. Watch House, Port Talbot, Glam. (3) P. Gaylard & Son, 4, Court Road, Bridgend.

AIR MINISTRY. (1) Building work. (3) Lewis & Watters, Ltd., Sandon Road, Hepton, Stafford.

AIR MINISTRY. (1) Building work. (3) G. & J. Seddon, Ltd., Little Hulton, Walkden, Manchester.

AIR MINISTRY. (1) Building work. (3) W. E. Chivers & Sons, Ltd., Devizes, Wilts.

AIR MINISTRY. (1) Building work. (3) R. A. Buckle, Ltd., Gas Works Lane, Prestatyn, Flintshire.

AIR MINISTRY. (1) Building work. (3) Kerridge (Cambridge), Ltd., Sturton Street, Cambridge.

HEATING VENTILATING AIR CONDITIONING

By *Cheethams*

of Oldham

H. CHEETHAM & CO., LTD.
Manchester Street, Oldham

Phone: MAIN 3881/2/8.
Grams: 'HYGROLIT' Oldham

MULLEN AND LUMSDEN LIMITED

Contractors and
Joinery Specialists

**41 EAGLE STREET, HOLBORN,
LONDON, W.C.1.**

LONDON: Telephones: CROYDON:
CHANCERY 7422/3/4 ADDISCOMBE 1264

ENGERT & ROLFE LTD ASPHALTE WORK

LONDON E 14  EAST 1441

ENGLISH TIMBERS

for Building and Joinery Trades, Oak Planks
for Cills, Half-Timbering, or scantling to size.

Architects' designs for Panelling and
exclusive furniture faithfully interpreted.

GATES AND OAK DOORS A SPECIALITY

Seasoned quartered boards for Flooring,
Panelling, etc. Machining done and Joinery
manufactured for the trade. Gates and Fencing.
Established 1884.

WYCKHAM BLACKWELL Ltd.
Hampton-in-Arden, BIRMINGHAM
Telephone: HAMPTON-IN-ARDEN, 3

DAMP WALLS CAN BE MADE WITH ONLY BONE DRY

ONE COAT OF Penetrex



"53" WATERPROOFING LIQUID

Absolutely Colourless, Penetrex "53" does its job thoroughly, on all surfaces. One gallon covers from 100 to 270 sq. ft. Sold by Builders' Merchants in all sizes from Quart tins to 10 Gallon drums. Send for price and name of nearest stockist to

F. A. WINTERBURN LTD.
(Incorporating Lithex Products)
HOLBORN STREET, LEEDS, 6. Tel.: 25492



Perfection?

FIRE ESCAPE STAIRS

Protection!

These building front panels and the fire escape stair are typical of many manufactured by Lion Foundry.



LION FOUNDRY
CO. LIMITED,
KIRKINTILLOCH, NR. GLASGOW
TEL.: KIRKINTILLOCH 2231/2
LONDON OFFICE: 124, VICTORIA STREET, S.W.1
TEL.: VICTORIA 9148

Just another Heating Installation
LYNDON GREEN
PRIMARY SCHOOL
Architect: S. T. WALKER
Consultant Engineers: HOARE LEA & PARTNERS

EXECUTED BY

**WALTER ARMSTRONG
LIMITED.**

HEATING ENGINEERS

No. 2 PRITCHETT STREET,
BIRMINGHAM, 6.

TELEPHONE: AST. 2760.

NATURALLY resistant to damp



Builders and Architects take a tip from the Duck-billed Platypus which uses a natural oil to resist damp. The shrewd men of the building trade specify "Aqualite", the Bitumen-impregnated and coated dampcourse, Nature's own damp resistant.

BRIGGS **AQUALITE**
BITUMEN DAMPCOURSE

"Laid in a minute . . . lasts as long as the wall!"

WILLIAM BRIGGS & SONS LTD. DUNDEE.

BRANCHES THROUGHOUT THE UNITED KINGDOM

Heating water for industry is a responsible job —INSTALL G.E.C. WATER HEATERS

FOR EFFICIENCY AND RELIABILITY

Whatever the quantity of hot water required, however complicated the system, you'll find G.E.C. has just the right equipment to solve the problem. Cleaner, economical and thoroughly reliable, G.E.C. Water Heaters are ideal for supplying hot water for process or ablation purposes. Consult G.E.C. on all your water heating problems.

G.E.C.

INDUSTRIAL

ELECTRIC WATER HEATERS

THE GENERAL ELECTRIC CO. LTD.
MAGNET HOUSE, KINGSWAY, LONDON, W.C.2



- 600 gals. 54 kW.
- Two 300 gal. 27 kW. G.E.C. Water Storage Heaters installed
- in an ablation block of a large engineering works.



ELLARD

ESTATE SLIDING DOOR GEAR

ELLARD "Estate" Sliding Door Gear has again been specified for a large housing estate: the People's Houses, Canterbury, Kent. "Estate" Sliding Door Gear offers maximum economy in use of space. For easy access and efficient action, garage doors should be fitted with ELLARD "Radial" Sliding Door Gear. The illustration below shows a typical domestic garage with sliding doors running on ELLARD "Radial" Door Gear.

ELLARD

RADIAL

ELLARD Sliding Door Gear has been specified for flats and housing schemes by: London County Council; Canterbury and Peterborough Corporations; Eton, Mexborough, Rushden, Sawbridgeworth and Wellingborough U.D.C.s; Easington and Sedgefield R.D.C.s; and for British Railways Housing Estates, Southall; Coronation Bungalows, South Shields; Kyles Settlement Estate, Walsford; Newton Aycliffe and Stevenage New Towns.

CLARKE ELLARD ENGINEERING CO. LTD.
Works Road, Letchworth, Herts. Tel.: 613/4



B.M.I.

OFFICIAL ANNOUNCEMENTS

APPOINTMENTS • CONTRACTS • TENDERS

Rate 1/6 per line, minimum 3/-

Close for press 1st post Monday for following Thursday Issue

PRESS NOTICE

For the issue of "The Architect and Building News" dated 10 June, classified advertisements must reach us by 1ST POST FRIDAY, 4 JUNE.

APPOINTMENTS

The engagement of persons answering these advertisements must be made through the local office of the Ministry of Labour and National Service, etc., if the applicant is a man aged 18-59 or a woman aged 18-59 inclusive, unless he or she or the employer is exempted from the provisions of The Notification of Vacancies Order 1952.

ARCHITECT.

WILLENHALL U.D.C. invite applications for the post of **ARCHITECT** at a salary in the range £900-£1,100. The post is subject to Superannuation Acts, conditions of service of Joint Negotiating Committee for Chief Officers and one month's notice. Applicants must be Associates of the Royal Institute of British Architects and have had wide experience in architectural design and construction, particularly of houses.

Applications, stating age, qualifications, experience, present and past appointments, two referees and whether applicant is related to any member or senior officer of the Council, must reach the Clerk of the Council, Town Hall, Willenhall, Staffs, by 12th June, 1954. [7976]

GOVERNMENT OF NORTHERN IRELAND.

VACANCY FOR ARCHITECT.

APPLICATIONS are invited from registered Architects for a post in the Ancient Monuments Branch of the Ministry of Finance. The post is an unestablished one, but the successful candidate will be considered for promotion and for permanent and pensionable posts as vacancies arise.

Salary: £675 × £25—£750 × £30—£960 × £40—£1,000. Entry point depends on age. Minimum of scale is linked to age 26, with an increase of one increment for each year above that age, subject to a maximum entry point of £900.

Applicants should have specialized knowledge of the maintenance and preservation of ancient monuments and have had experience in the study and analysis of the structural development of historic buildings. Proficiency in draughtsmanship and photography would be an advantage.

Preference will be given to suitably qualified candidates who served in H.M. Forces in the 1914-18 or 1939-45 Wars, provided the Ministry is satisfied that such candidates are, or within a reasonable time will be, able to discharge the duties efficiently.

Application forms may be obtained from the Director of Establishments, Ministry of Finance, Stormont, Belfast, to whom they should be returned with copies of two recent testimonials, so as to reach him not later than 14th July, 1954. [8008]

UNIVERSITY OF HONG KONG.

APPLICATIONS are invited for the posts of **SENIOR LECTURESHIP, LECTURESHIP, and ASSISTANT LECTURESHIP IN ARCHITECTURE.**

Emoluments for a single man on expatriate terms are as under:—
Senior Lectureship: £1,405 × £40—£1,565 per annum.
Lectureship: £1,240 × £40—£1,480 per annum.
Assistant Lectureship: £920 × £35—£1,095 per annum.

(Additionally, a Family Allowance and temporary and variable High Cost of Living Allowance are paid as applicable.)

Applicants must be qualified Architects, and Fellows or Associates of the R.I.B.A., and should have had practical and teaching experience.

First-class sea passages are provided for expatriate staff.

Further particulars and information as to the method of application may be obtained from the Secretary, Association of Universities of the British Commonwealth, 5, Gordon Square, London, W.C.1.

The closing date for the receipt of applications, in Hong Kong and London, is 15th July, 1954. [7998]

APPOINTMENTS—contd.

CITY OF BIRMINGHAM.

CITY ARCHITECT'S DEPARTMENT.

APPLICATIONS are invited for the following appointments:—
SCHOOLS SECTION

(a) **ASSISTANT PRINCIPAL ARCHITECT**, Grade A.P.T.X (£920/£1,050 per annum). The successful candidate will be in charge of a large Drawing Office engaged upon the Major School Building programme. An extensive knowledge is required of the planning, design and erection of all types of school buildings in both traditional and non-traditional construction.

(b) **SENIOR ASSISTANT ARCHITECTS**, Grade A.P.T.VIII (£785/£860 per annum). The successful candidates will be responsible for the design and supervision of school buildings and must have had good experience in the erection of large traditional and non-traditional buildings.

(c) **ASSISTANT ARCHITECTS**, Grade A.P.T.VII (£735/£810 per annum). Applicants must have had good experience in the design and erection of large buildings. Experience of school buildings preferable, but not essential.

(d) **Assistant Architects**, Grade A.P.T.V. (£620/£670 per annum).

HOUSING AND GENERAL SECTIONS

(e) **ASSISTANT ARCHITECT**, Grade A.P.T.VII (£735/£810 per annum).

(f) **ASSISTANT ARCHITECTS**, Grade A.P.T.VI (£695/£760 per annum).

(g) **ARCHITECTURAL ASSISTANTS**, Grade A.P.T.IV (£580/£625 per annum).

The Department is carrying out (1) a large housing programme which includes multi-storey flats and large shopping centres, as well as the redevelopment of central areas, (2) the design and erection of large public buildings.

Applicants must hold the Associate Membership of the R.I.B.A., except (g) for which the R.I.B.A. Intermediate Examination or equivalent qualification is required.

The posts are permanent, superannuable, subject to a medical examination and to one month's notice on either side.

Applications, endorsed with the heading of the post, stating age, present post and salary, qualifications and experience, together with the names of two persons to whom reference can be made, should reach the undersigned not later than the 14th June, 1954.

Canvassing disqualifies.

A. G. SHEPPARD FIDLER,
City Architect.

Civic Centre, Birmingham, 1.

[8003]

NATIONAL DOCK LABOUR BOARD

TECHNICAL ASSISTANT—ESTATES DEPARTMENT

APPLICATIONS are invited for the post of **TECHNICAL ASSISTANT** in the Estates Department of the Board. Applicants should be accurate and neat draughtsmen and be able to assist in the preparation of specifications and all technical work of an estates department. Salary range £599 to £709. Successful applicant will be required to pass medical examination prior to confirmation of appointment. Contributory Pension Scheme. Applications on forms obtainable from 9/10, Upper Brook Street, London, W.1, to be lodged within 10 days of this advertisement. [8004]

PADDINGTON BOROUGH COUNCIL require **ARCHITECTURAL ASSISTANT (A.P.T.V)** (£650-£700 according to experience). Young architect of A.R.I.B.A. standard with practical experience in connection particularly with the design and supervision of good contemporary multi-storey housing work, and the ability to produce work speedily. Work will also include interesting schemes for other Council departments. Write age, qualifications, and details of past experience and training to Town Clerk (A.159), Paddington, W.2, by 14th June, 1954. [8005]

APPOINTMENTS—contd.

LONDON COUNTY COUNCIL.

ARCHITECT'S DEPARTMENT.

VACANCIES for **ARCHITECTS** in Schools and Housing Divisions. Salary to £721. Particulars and application forms from Architect (AR/EK/A/3), County Hall, S.E.1. (374.) [0141]

NORWICH EDUCATION COMMITTEE.

NORWICH CITY COLLEGE AND ART SCHOOL, IPSWICH ROAD, NORWICH.

Principal: Frank Briers, B.Sc., D.Phil.(Oxon), F.R.I.C.

WANTED for 1st September, or as soon thereafter as possible, **TEACHER** in **BUILDING** for Ordinary National Certificate and subjects ancillary to the City and Guilds Full Technological Certificates.

Salary, Burnham Technical Scale, Grade A, with appropriate increments for previous teaching and suitable industrial experience.

Application forms, which may be obtained from the Director of Education, City Hall, Norwich, on receipt of a stamped addressed envelope, should be returned to the Principal as soon as possible. [8011]

BOROUGH OF COLCHESTER.

TEMPORARY ASSISTANT QUANTITY SURVEYOR.

APPLICATIONS are invited for the appointment of **TEMPORARY ASSISTANT QUANTITY SURVEYOR** in the Borough Engineer's Department, at a salary in accordance with A.P.T. Grades I-III (£490-£595 per annum) according to qualifications and experience.

Candidates should be capable of working up and assisting in the taking off of quantities. A knowledge of current prices and some experience in the preparation of interim certificates and final accounts would be an added advantage. Preference will be given to applicants who have passed the intermediate examination of the R.I.C.S.

Applications, stating age, qualifications and experience, accompanied by copies of not more than two recent testimonials, must be delivered to the Borough Engineer, 1, West Stockwell St., Colchester, not later than 14th June, 1954, endorsed "Temporary Assistant Quantity Surveyor."

Canvassing will disqualify, and applicants must state whether they are related to any member or senior officer of the Council.

N. CATCHPOLE,
Town Clerk.

Town Hall,

Colchester.

25th May, 1954.

[8013]

Amended Advertisement.

COUNTY OF BRECON.

APPOINTMENT OF DEPUTY COUNTY ARCHITECT.

APPLICATIONS are invited from members of the Royal Institute of British Architects for the above appointment, at a salary according to A.P.T. Grade IX of the National Joint Council's Scheme of Conditions and Service, viz., £840 × £40—£960 per annum. The successful candidate must have had considerable experience in the design, construction and maintenance of County Buildings and Schools, together with administrative duties. The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, as amended and will be terminable by three months' notice in writing on either side. The successful applicant will be required to pass a medical examination and will also be required to reside in or near to Brecon. Further particulars and form of application may be obtained from the undersigned, by whom completed applications must be received not later than 30th June, 1954. Canvassing, either directly or indirectly, will definitely disqualify the applicant for the appointment.

C. M. S. WELLS,
Clerk of the County Council.

County Hall,

Brecon.

[8016]

CONTRACTS

COVENTRY CATHEDRAL.

THE Coventry Cathedral Reconstruction Committee proposes entering into a contract for works, including SITE CLEARANCE, EXCAVATION, CONCRETE FOUNDATIONS AND CIVIL ENGINEERING WORK in connection with the construction of the new Cathedral.

The Committee intends to make a short list of contractors from the list of applicants, their decision as to the selection of names to be included in this list being final.

Firms wishing to have their names considered should apply by June 14th to the undersigned at 22, Bayley Lane, Coventry, giving a list of works carried out and the names of architects and public authorities for whom they have worked.

N. T. THURSTON,
Secretary to the Cathedral
Reconstruction Committee.

2nd June, 1954.

[7999]

MISCELLANEOUS SECTION

RATE: 1/6d. per line, minimum 3/-, average line 6 words. Each paragraph charged separately.

BOX NOS. add 2 words plus 1/- for registration and forwarding replies which should be addressed c/o, "The Architect & Building News," Dorset House, Stamford Street, London, S.E.1.

PRESS DAY Monday. Remittances payable to Iliffe & Sons Ltd., Dorset House, Stamford Street, London, S.E.1.

No responsibility accepted for errors.

ARCHITECTURAL APPOINTMENTS VACANT

The engagement of persons answering these advertisements must be made through the local office of the Ministry of Labour and National Service, etc., if the applicant is under 18 or a woman aged 18-59 inclusive, unless he or she or the employer is exempted from the provisions of The Notification of Vacancies Order 1952.

JUNIOR Assistant required for architect's office in Westminster.—Telephone Whitehall 6542 for appointment. [8014]

ARCHITECTURAL Assistant required immediately for busy country practice; Intermediate standard desirable; salary by arrangement.—Smith-Woolley and Partners, Collingham (303), Newark, Notts. [7968]

SENIOR and junior architectural assistants required for general London practice.—Write, stating age, details of experience, and salary required, to H. & H. M. Lidbetter, F./R.I.B.A., 2, Verulam Buildings, Gray's Inn, W.C.1. [7993]

ARCHITECTURAL Assistants required. Applicants should have completed their National Service and have had at least one year's office experience.—Apply in writing, stating age, training and experience, to the Chief Staff Architect, Ilford, Ltd., Romford, Essex. [8015]

JUNIOR Architectural Assistant required by University Department. Commencing salary £290-£375, according to age and experience, contributory pension scheme. Wide variety of interesting work, giving opportunity of valuable experience towards qualifications. Applicants should have completed National Service and have a sound knowledge of working drawings, details and surveys.—Reply, giving full details, to Box 5748. [8002]

ARCHITECT'S assistant (male) required in London office; interesting and varied practice, including housing, licensed premises, hospital, factory and laboratory works; several years' office experience, with R.I.B.A. Intermediate, essential minimum qualifications; 5-day week; salary £546 per annum, with staff profit sharing scheme in addition.—Applications by letter only, giving particulars of training and experience, to Stewart & Hendry, F./R.I.B.A., A.M.T.P.I., 90, Fenchurch St., London, E.C.3. [7977]

SITUATIONS VACANT

YOUNG Surveyor required by H. C. Wakefield & Sons, Ltd., Whitson St., Bristol 1.—Apply in writing with details to General Manager. [8006]

WANTED, keen assistant. Several years office experience essential. Salary £600-£650.—Please write to Clifford Culpin & Partner, 3, Southampton Place, W.C.1. [8007]

DRAUGHTSMAN, shopfitting, for Capetown; fully experienced, capable interviewing architects, clients, etc.; write, stating initial salary required, plus statutory living allowance, enclosing copy drawings, references, etc.; allowance for passage.—Reply Box 5753. [8009]

SERVICES OFFERED

BUILDINGS measured, drawings prepared for structural alterations, surveying, levelling.—Folmer, 25, Koh-I-Noor Ave., Bushey, Herts. Bus. 2382. [8018]

FLOORING Consultant Service for advice and assistance on all problems relating to sub-floors and floor finishes for old and new work.—41, Kenley Road, S.W.19. [7962]

ARCHITECTS' and Surveyors' dimension books calculated quickly and efficiently by professional computer operators.—South Eastern Calculating Service, 20, Greenholm Rd., Eltham Park, S.E.9. [7997]

BUSINESS OPPORTUNITY

PRINCIPAL of well-established Australian constructional firm now in England is anxious to meet principals of British firms considering or involved in erection of factories or formation of subsidiaries in Australia. Full information on local labour conditions, costs and market potential in Melbourne particularly and Australia generally can be provided. Consideration would also be given to investment of funds in British company starting in Victoria.—Write to Box No. 7706, c/o Charles Barker & Sons, Ltd., 31, Budge Row, London, E.C.4. [8012]

AGENTS WANTED

PAINT Manufacturers require additional Agents to call on Builders, etc., to sell full range of paints at highly competitive prices. Worthwhile commission to enterprising salesmen. State area covered and lines carried.—J. Johnstone & Sons, Ltd., Paint Manufacturers, High St., Gorton, Manchester. [8000]

PLANT FOR SALE

FOR sale, Smith 2/10 excavator, machine No. X363, fitted with new Petter engine; luffing shovel equipment and dragline; £1,700.—Apply James Bennett (C.) Ltd., Town Hill, Warrington. [7988]

MOBILE crane, Bay City, K.R.10, International, 5-ton capacity, double drum, 25ft jib and 10ft extension, excellent condition throughout, original tyres unmarked; £2,000 or near offer.—Woolfenden's, Ltd., 315, Prescott Rd., Liverpool, 13. [7994]

FOR sale, Ruston 10R.B. excavator, serial 9481, excellent order, with face shovel or skimmer equipment; Muir-Hill 10B dumper, reconditioned, new Perkins diesel engine, excellent tyres; Chase-side Hi-Lift shovel, reconditioned, new Perkins diesel engine, new tyres.—Heaver's Plant Hire (Chichester), Ltd., Whyke, Chichester. Tel. Chichester 3248. [8010]

DIESEL-ELECTRIC Generating Sets, A.E.C. water-cooled engine with electric self-starter coupled to Brush electric 62.5kva alternator, 230/440v, 3-phase, 50 cycles, 4 wire, mounted as complete unit on steel foundation frame with skids. Four complete power units as above for sale. Can be used singly or coupled. All very modern, perfect condition and practically new. Excellent power plants for country factory or overseas. View by appointment only.—The Aluminium Works, Stratford-on-Avon. [8017]

FOR sale, Smith 2/10 1/2 cu yd Diesel Excavator, Dorman 2DW Engine, Skimmer, Trencher and Shovel Equipment, £1,150. 10R.B. 1/2 cu yd Diesel Excavator, Ruston 3VRON Engine, fitted with Backacter Equipment, new 1946-7, £2,050. 4 cu yd Onions Rope-operated Scraper, very good order throughout, cleaned and repainted, £750. C.P.T. 160 Diesel Air Compressor, Ruston 3VRH Diesel Engine, 3-tool machine, new 1950. 6-8-ton Aveling-Barford Road Roller, tandem type, Fordson T.V.O. Engine, £275. 14/10 Stothert & Pitt Diesel Concrete Mixer, nearly new Lister PR2 Diesel Engine, reconditioned, £325. 10/7 Rex Closed Drum Diesel Concrete Mixer, powered by Ruston 1VSH Diesel Engine, reconditioned, £225. 1/2 cu yd Dragline AX Type Buckets (six available), require repairs, no chains or spreader bars, £15 each. New Stothert & Pitt Mixers, Vibratory Rollers, Weigh-batchers, etc.—Richards Stevens (Engineers), Ltd., 89-93, Wrentham St., Birmingham, 5. Midland 5447. [8001]

PLANT FOR HIRE

CHASESIDE mechanical shovels, Major type, by day, week or contract, with drivers; tipping lorries supplied if required with shovels.—Henry Proud, Ltd., Primrose Wharf, Tunnel Ave., Greenwich, S.E.10. Tel. Greenwich 0072-3. [0138]

FOR SALE

ALL hardwood mouldings, plain and embossed, embossed ornaments and dowels; send for catalogue and to-day's lowest trade prices.—Dareve's Moulding Mills, Ltd., 60, Pownall Road, Dalston, E.8. Clissold 1543/4. [0142]

8,000,000 Parker-Kalon self-tapping screws at greatly reduced prices, types A and Z, Nos. 6, 8 and 10, in countersunk, binding and round heads.—List from D. C. Woodberry, Engineers' Supplies, Treforest Estate, Glam. [7971]

NISSEN HUTS, ETC.

NEW steel-framed building, 200ft long x 100ft wide in two 50ft bays, 16ft to eaves, complete with purlins, sheeting rails, nuts, bolts, etc.—F. Burrill, 18, Dumfries Place, Cardiff. Tel. 26100. [7950]

RECONDITIONED ex-Army huts and manufactured buildings, timber asbestos, Nissen type, hall type, etc., all sizes and prices.—Write, call or telephone Universal Supplies (Belvedere), Ltd., Dept. 32, Crabtree Manorway, Belvedere, Kent. Tel. Erith 2948. [0143]

100ft wide x 200ft long Building and 150ft square Building for sale. Also 35ft, 45ft and 50ft span standard Buildings available. These can be supplied in any lengths. Mobile Cranes also available for hire.

MORELAND & HURLEY LTD.,
BROMFORD LANE, WEST BROMWICH.
BRO. 2321. [7953]

INSURANCE

ARCHITECTS' Indemnity Insurance effected. Please write for Proposal Form to E. J. SAXBY, Incorporated Insurance Broker, 37a, Carfax, Horsham, Sussex. Tel. 990. [7933]

CONTACT LENSES

MODERN Contact Lens Centre, 7 (G1), Endsleigh Court, W.C.1. Deferred terms, Booklet sent. [0140]

MISCELLANEOUS

BUDD'S for all jobbing printed account books. No book-keeping knowledge required. Rulings and headings free.—51, Teevan Road, Croydon. [7821]

PRIVATE DRIVES AND ROADS

PRIVATE Drives, Forecourts, Roads, etc., re-surfacing or new construction by Specialists. Tarmacadam, Tar-spraying, Chippings, Shingle, etc. Estimates free.—Stanley Lucas (Slough), Ltd., 16, Mackenzie St., Slough 21279. [0136]

DEMOLITION

DEMOLITION AND CLEARANCE

"WATCH IT COME DOWN"
282, BARING RD., LEE, S.E.12. TEL. LEE GREEN 7755.

By SYD BISHOP & SONS,
OLD PROPERTY BOUGHT FOR SALVAGE. [0139]

BOOKS, ETC.

"DOMESTIC Water Heating: Basic Engineering Principles of Electric and Solid-Fuel Installations." By Ronald Grierson, M.I.E.E., M.I.Mech.E. A critical analysis of current practice in household hot water supply. Shows that the combination of an electric immersion heater with a storage tank and coal- or coke-fired water heater can be economical and efficient. The whole theory and practice of domestic water heating is covered, including much data from recent research. 25s net from all booksellers. By post 25s 7d from The Publishing Dept., Dorset House, Stamford Street, London, S.E.1.

POST-WAR REBUILDING ...

PORTLAND STONE
MONKS PARK STONE

THE BATH AND PORTLAND STONE FIRMS LTD.

Head Office:
BATH
Tel.: 3248-9PORTLAND
Tel.: 3113LONDON OFFICE:
Grosvenor Gardens House S.W.1
Tel.: VICTORIA 9182-3RINGMER BUILDING
WORKS, LTD.

BUILDERS & CONTRACTORS

Joinery Specialists

RINGMER : LEWES : SUSSEX

Telephone : Lewes 300

London's finest new & secondhand Value
ARCHITECTS' PLAN CHESTSSteel & Wood Office Furniture
Filing Cabinets
Safes Chairs etc.
M. MARGOLIS

378-380 EUSTON ROAD LONDON N.W.1 Phone: EUS 1322

SAVE 60% TO 80%
IN FIXING COSTS

ONE TOOL ONLY

will fix 5/32", 1/4", 5/16", 3/8" Whitworth bolts and nails.

The

"FLASH-HAMMER"

Foreign

BOLT

FIRING

TOOL

FOR FIRM
FIXING INTO
WOOD, BRICKWORK,
CONCRETE,
STEEL, ETC.SEE OUR STAND AT THE M. of W.
BUILDING PLANT EXHIBITION,
READING, JUNE 24th — 30th, 1954.*Condrup Ltd*67-73 WORSHIP ST., LONDON,
E.C.2.

Phone : Bishopsgate 8741 (3 lines).

Adamsez Ltd

SANITARY ENGINEERS AND
FIRECLAY MANUFACTURERS

SCOTSWOOD-ON-TYNE

London Showroom: 54, VICTORIA STREET, S.W.1

CLICK!

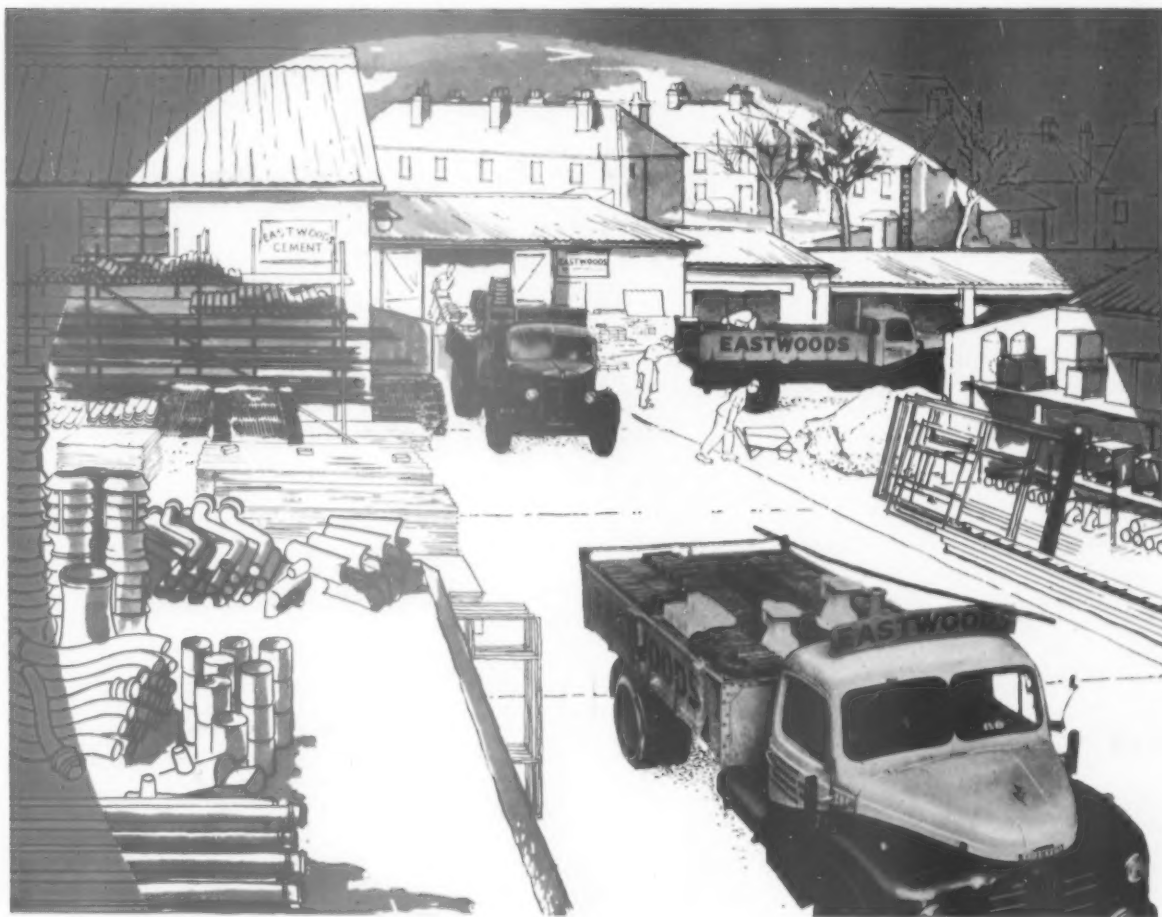
...and the door smoothly closes for the
fiftieth time todayIt's amazing how people take the faultless
service of little things for granted. Little things
like Baldwin's Cast Iron Rising Hinges for
example—their robust construction and the
care and attention which goes into their
manufacture ensures smooth and silent action
day after day—year after yearCAST IRON RISING HINGES BY
BALDWIN'SSole Manufacturers: BALDWIN, SON & CO. LTD., STOURPORT-ON-SEVERN
M-W.71

INDEX TO ADVERTISERS

Official Notices, Tenders, Auction, Legal and Miscellaneous Appointments on pages 30 and 31

Adamite Co., Ltd., The	25	Condrup, Ltd.	32	Gibson, Arthur L., & Co., Ltd.	25	Ringmer Building Works, Ltd.	32
Adamesz, Ltd.	32	Conex-Terna, Ltd.	2	Ltd.	25	"Royal Board"	26
Ames Crosta Mills & Co., Ltd.	10	Cousins & Co. (M/C), Ltd.	26	Gray, J. W., & Co., Ltd.	27	Rudders & Paynes, Ltd.	14
Armstrong, Walter, Ltd.	28	Coverite (Asphaltes), Ltd.	27	Gummers, Ltd.	13	Rudkin, S. O., & Co., Ltd.	25
Baldwin, Son & Co., Ltd.	32	Deacon, J. R., Ltd.	14	Harvey, G. A., & Co., Ltd.	12	Siegmart Floor Co., Ltd.	8
Bath & Portland Stone Firms, Ltd.	32	Denton & Jutsum, Ltd.	13	Haywards, Ltd.	25	S.M.D. Engineers, Ltd.	21
Baume & Co., Ltd.	24	Dunlop & Ranken, Ltd.	13	Holophane, Ltd.	19	Soundproof Construction	27
Black Sheathing Felt	6	Inside Front Cover		Hope, Henry, & Sons, Ltd.	23	Speedwell Gear Case Co., Ltd.	20a
Blackwell, Wyckham, Ltd.	27	Eastwoods Sales, Ltd.		Kings Langley Engineering Co., Ltd.	12	Spencer Lock & Co., Ltd.	26
Briggs, Wm., & Sons, Ltd.	28	Inside Back Cover		Kinnear Shutters	25	Steven, A. & P., Ltd.	26
British Plaster Board (Holdings), Ltd., The	18	E.M.I. Sales & Service, Ltd.	20b	Laing, John, & Sons, Ltd.		Stic B Paint Sales, Ltd.	24
British Vacuum Cleaner & Engineering Co., Ltd., The	16	Engert & Rolfe, Ltd.	27	Light Steelwork (1925), Ltd.	26	Tinsley Wire Industries, Ltd.	7
Cafferata & Co., Ltd.	4	Finnish Lion Board Ltd., The	3	Lion Foundry Co., Ltd.	28	True Flue, Ltd.	27
Cement Marketing Co., Ltd., The	11	Freeman, Joseph, Sons & Co., Ltd.	25	Margolis, M.	32	Turners Asbestos Cement Co., Ltd.	17
Chase Products (Engineering), Ltd.	25	Gardner, J., & Co., Ltd.	27	Marley Tile Co., Ltd., The	22	Tyrol Sales, Ltd.	26
Cheetham, H., & Co., Ltd.	27	Gas Council	9	Midland Woodworking Co., Ltd., The	1	Vulcanite, Ltd.	27
Clarke Ellard Engineering Co., Ltd.	29	Gaskell & Chambers, Ltd.	20	Morris, H., & Co., Ltd.	5	Ward, Thos. W., Ltd.	25
		General Electric Co., Ltd., The	29	Mullen & Lumsden, Ltd.	27	Wardle Engineering Co., Ltd., The	10
						Wincott, G. E. & W., Ltd.	16
						Winterburn, F. A., Ltd.	27
						Wood, Edward, & Co., Ltd.	15

Printed in Great Britain for the publishers, ILLIFFE AND SONS LTD., Dorset House, Stamford Street, London, S.E.1, by CORNWALL PRESS LTD., Paris Garden, Stamford Street, London, S.E.1.



EASTWOODS

**supply and deliver all
reliable building materials**

A chain of Eastwoods Depots extends from Hampshire to Yorkshire. Each of these Depots is a self-contained unit carrying a fully comprehensive stock of building materials. Within its own area every Depot serves the Building Trade (as Builders' Merchants) using a fleet of modern vehicles to provide on-site deliveries where required. The service they offer is backed by the whole Eastwoods Organisation with its manufacturing and specialist resources. Each Depot can therefore provide an unrivalled service from which very many Builders and Contractors can and do derive material benefits. The Manager of your nearest Depot will be very happy to extend the Eastwoods Service to you.

EASTWOODS SALES LIMITED

Eastwood House, City Road, London, E.C.1. Tel.: CLerkenwell 4333 (20 lines)

Depots in: LONDON (Edgware, Greenwich, Hillingdon, Isleworth, Kingsland, Mortlake, Wandsworth, Waterloo, Wembley), CAMBRIDGE, COVENTRY, DONCASTER, EASTLEIGH, GILLINGHAM, IPSWICH, LETCHWORTH, NORWICH, SOUTHBEND-ON-SEA, SUDBURY (SUFFOLK), WEYBRIDGE.



FACTORIES. Factory at Darlington for Patons and Baldwins Ltd.



OFFICE BUILDINGS. Offices for the London, Cape and New York Trust (Pty.) Limited.

Post-war Buildings



SCHOOLS. Kells Secondary Modern School, Whitehaven, West Cumberland.



BANK PREMISES. Bank premises in Mauritius for Barclays Bank (Dominion, Colonial and Overseas) Port Louis.



HOSPITALS. King George V Merchant Seaman's Memorial Hospital, Malta.

LAING

JOHN LAING AND SON LIMITED
Building and Civil Engineering Contractors
GREAT BRITAIN, CANADA
UNION OF SOUTH AFRICA, RHODESIA